Search 11 Baskar, P. 09/987190

- key terms

(FILE 'CAPLUS' ENTERED AT 14:30:43 ON 02 SEP 2004)
L1 15667 SEA FILE=CAPLUS ABB=ON PLU=ON (CANDIDA OR C)(W)ALBICANS
L2 58209 SEA FILE=CAPLUS ABB=ON PLU=ON (SDS OR (NA OR SODIUM)(W)DODECY L(W)(SULPHATE OR SULFATE))(W)(PAGE OR (POLYACRYLAMIDE OR POLY(W)(ACRYLAMIDE OR ACRYL AMIDE) OR POLYACRYL AMIDE)(W)GEL(W) ELECTROPHOR?)
L10 141 SEA FILE=CAPLUS ABB=ON PLU=ON L1(L)L2
L11 23 SEA FILE=CAPLUS ABB=ON PLU=ON L10(L)ANTIGEN?

L11 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 08 Dec 2003
ACCESSION NUMBER: 2003:952288 CAPLUS
DOCUMENT NUMBER: 141:21976
TITLE: Preparation of chicken egg yolk antibody (IgY) against Candida albicans
AUTHOR(S): Chang, Shan; Zhang, Yaping; Cha, Xiaoxia; Xiao, Guangxia
CORPORATE SOURCE: Southwest Hospital, Third Military Medical University, Chongqing, 400038, Peop. Rep. China
SOURCE: Di-San Junyi Daxue Xuebao (2002), 24(9), 1026-1028
CODEN: DYXUE8; ISSN: 1000-5404
PUBLISHER: Di-San Junyi Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The yield, purity and stability of IgY from chicken eggs yolk were observed Laying hens (White Leghorn), 25 wk old, were immunized with **Candida albicans**. IgY was purified with the modified simple water dilution method (WD) and its purity and yield were measured resp. with **SDS-PAGE** and UV spectrophotometry. The **antigenicity** of IgY was assayed with Western-blotting method and its stability to heat was measured with ELISA. The purity of IgY was about 95% and 13 mg IgY from per mL egg yolk was routinely obtained. Moreover IgY had the same mol. weight and **antigenicity** in comparison with IgG of chicken serum. IgY from eggs yolk of laying hens immunized with **Candida albicans** was got successfully.
The WD purification methods possess high yield and purity and have no adverse effect on the immunoactivity of IgY. The IgY is proved to be the IgG from chicken serum and has favorable stability to heat.

L11 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 04 Apr 2003
ACCESSION NUMBER: 2003:259520 CAPLUS
DOCUMENT NUMBER: 139:273123
TITLE: Differentiation of Candida albicans and Candida dubliniensis by using recombinant human antibody single-chain variable fragments specific for hyphae
AUTHOR(S): Bliss, Joseph M.; Sullivan, Mark A.; Malone, Jane; Haidaris, Constantine G.
CORPORATE SOURCE: Department of Pediatrics, University of Rochester School of Medicine and Dentistry, Rochester, NY, 14642, USA
SOURCE: Journal of Clinical Microbiology (2003), 41(3), 1152-1160
CODEN: JCMIDW; ISSN: 0095-1137
PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal
LANGUAGE: English
AB To identify **antigens** specific for the filamentous form of **Candida albicans**, a combinatorial phage display library expressing human Ig heavy and light chain variable regions was used to select phage clones capable of binding to the surfaces of viable **C. albicans** filaments. Eight distinct phage clones that bound specifically to filament surface **antigens** not expressed on blastoconidia were identified. Single-chain antibody variable fragments (scFv) derived from two of these phage clones (scFv5 and scFv12) were characterized in detail. Filament-specific **antigen** expression was detected by an indirect immunofluorescence assay. ScFv5 reacted with C. dubliniensis filaments, while scFv12 did not. Neither scFv reacted with C. glabrata, C. parapsilosis, C. rugosa, C. tropicalis, or Saccharomyces cerevisiae grown under conditions that stimulated filament formation in **C. albicans** and C. dubliniensis. Epitope detection by the two scFv was sensitive to proteinase K treatment but not to periodate treatment, indicating that the cognate epitopes were composed of protein. The **antigens** reactive with scFv5 and scFv12 were extractable from the cell surface with Zymolyase, but not with SDS (SDS) and 2-mercaptoethanol, and migrated as polydisperse, high-mol.-weight bands on **SDS-PAGE** gels. The epitopes were detected on clin. specimens obtained from infants with thrush and urinary candidiasis without passage of the organisms on laboratory media, confirming epitope expression in human infection. The availability of a monoclonal immunol. reagent that recognizes filaments from both **C. albicans** and C. dubliniensis and another specific only to **C. albicans** adds to the repertoire of potential diagnostic reagents for differentiation between these closely related species.
REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 31 Jul 1997
ACCESSION NUMBER: 1997:477115 CAPLUS
DOCUMENT NUMBER: 127:172905
TITLE: Purification and characterization of extracellular aspartic proteinase of Candida albicans
AUTHOR(S): Na, Byoung-Kuk; Lee, Seong-Il; Kim, Sin-Ok; Park, Young-Kil; Bai, Gill-Han; Kim, Sang-Jae; Song, Chul-Yong
CORPORATE SOURCE: Department of Biology, Faculty of Natural Science, Chung-Ang University, Seoul, 156-756, S. Korea
SOURCE: Journal of Microbiology (Seoul) (1997), 35(2), 109-116
CODEN: JOMIFG; ISSN: 1225-8873
PUBLISHER: Microbiological Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An extracellular proteinase of **Candida albicans** was purified by a combination of 0-75% ammonium sulfate precipitation, DEAE Sepharose Fast Flow ion exchange chromatog., and Sephacryl S-200 HR mol. sieve chromatog. Its mol. weight was approx. 41 kDa on **SDS-PAGE** and isoelec. point was 4.4. The enzyme was inhibited by pepstatin A. Optimum enzyme activity ranged from pH 2.0 to 3.5 with its maximum at pH 2.5 and a temperature of 45°. The addition of divalent cations, Ca2+, Zn2+ and

Mg2+, resulted in no significant inhibition of enzymic activity. However, some inhibitory effects were observed with Fe2+, Ag2+ and Cu2+. With BSA as substrate, an apparent Km was determined to be 7 + 10-7 M and Ki, using pepstatin A as an inhibitor, was 8.05 + 10-8 M. N-terminal amino acid sequence was QAVPVTLXNEQ. Degradation of BSA and fibronectin was shown but not collagen, Hb, IgG, or lysozyme. The enzyme preferred peptides with Glu and Leu at the P1 position, but the enzyme activity was highly reduced when the P2 position was Phe or Pro. This enzyme showed **antigenicity** against sera of patients with candidiasis.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 08 Dec 1995
ACCESSION NUMBER: 1995:970540 CAPLUS
DOCUMENT NUMBER: 124:53220
TITLE: Production and use of monoclonal antibodies to Microsporum canis
AUTHOR(S): Pinter, L.; Ellis, H.J.; Ciclitira, P.J.; Noble, W.C.
CORPORATE SOURCE: Veterinary Faculty, University of Zagreb, Zagreb, 41000, Croatia
SOURCE: Veterinary Microbiology (1995), 46(4), 435-44
CODEN: VMICDQ; ISSN: 0378-1135
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Microsporum canis NCPF 179 and M. canis NCPF 177 dermatophyte cytoplasmic exts. (DCEs) were used as **antigens** to generate monoclonal antibodies (mAbs). Hybridomas with supernatants of optical d. (OD) > 1 for homologous dermatophyte cytoplasmic exts. (CE) and OD<0.5 for heterologous CE of **Candida albicans** tested by the enzyme-linked immunosorbent assays (ELISA) were selected for cloning. MAbs secreted by cloned hybridoma lines were screened against CE of M. canis, M. gypseum, M. equinum, M. distortum, Trichophyton verrucosum, **C. albicans**, Malassezia pachydermatis and Aspergillus fumigatus. The ELISA performed on clone supernatants identified a variety of different activities between the dermatophyte and other fungal CEs. The selected mAbs were used for immunoblotting of native and **sodium dodecyl sulfate-polyacrylamide gel electrophoresis** (**SDS-PAGE**) gels. Immunoblots with some of the mAbs tested allowed the differentiation of strains belonging to different dermatophyte species and isolates belonging to the M. canis.

L11 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 22 Nov 1995
ACCESSION NUMBER: 1995:934592 CAPLUS
DOCUMENT NUMBER: 124:4602
TITLE: Purification of a Candida albicans germ tube specific antigen
AUTHOR(S): Marot-Leblond, Agnes; Robert, Raymond; Senet, Jean-Marcel; Palmer, Tracey
CORPORATE SOURCE: Lab. d'Immunol.-Parasitol., UFR Sciences Medicales et Pharmaceutiques, Angers, 49100, Fr.
SOURCE: FEMS Immunology and Medical Microbiology (1995), 12(2), 127-36

CODEN: FIMIEV; ISSN: 0928-8244
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A **C. albicans** germ tube-specific **antigen** has been identified by the use of a monoclonal antibody (mAb 3D9.3). In the present report, a 2-step procedure was used to obtain a purified preparation of this **antigen** from a zymolyase extract of **C. albicans** germ tubes. The extract was 1st fractionated by gel filtration chromatog. The immunoreactive fractions were pooled, and the 3D9.3 **antigen** was further purified by hydrophobic interaction chromatog. using a phenyl-superose column. Anal. by **SDS-PAGE**, immunoblotting, and Con A staining revealed a single polydisperse band ranging 110-170 kDa. The **antigen** was purified 126-fold by protein content and 16.4-fold by carbohydrate content. Recovery of the **antigen** was 6.8% following the 2-step purification

L11 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 19 Mar 1994
ACCESSION NUMBER: 1994:131738 CAPLUS
DOCUMENT NUMBER: 120:131738
TITLE: Identification of a 65-kDa mannoprotein as a main target of human cell-mediated immune response to Candida albicans
AUTHOR(S): Torosantucci, Antonella; Bromuro, Carla; Gomez, Maria J.; Ausiello, Clara M.; Urbani, Francesca; Cassone, Antonio
CORPORATE SOURCE: Lab. Bacteriol. Med. Mycol., Ist. Super. Sanita, Rome, Italy
SOURCE: Journal of Infectious Diseases (1993), 168(2), 427-35
CODEN: JIDIAQ; ISSN: 0022-1899
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To identify mol. targets of anticandidal cell-mediated immunity (CMI) in humans, a highly immunogenic mannoprotein fraction (MP-F2) of **Candida albicans** was studied. **SDS-PAGE** and gel-permeation chromatog. separated MP-F2 into polydisperse mannoproteins of >200-31.5 kDa. However, only a 65-kDa constituent specifically induced proliferation of human peripheral blood mononuclear cells (PBMC). Lymphoproliferation was accompanied by production of interleukin (IL)-1β, interferon-γ, and IL-6 but not IL-4. MP-F2-and MP-65-induced PBMC proliferation was inhibited by an antagonist anti-T cell receptor antibody. Neither the purified protein derivative of Mycobacterium tuberculosis nor MP-65 activated naive lymphocytes from umbilical cord blood, although these cells proliferated extensively in response to both phytohemagglutinin and IL-2. These data strongly suggest that MP-65 is an immunodominant mannoprotein **antigen** that is ordinarily expressed as a target of anti-Candida CMI in healthy humans.

L11 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 05 Mar 1994
ACCESSION NUMBER: 1994:104390 CAPLUS
DOCUMENT NUMBER: 120:104390
TITLE: Candida albicans exocellular antigens released into a synthetic culture medium: characterization and

serological response in rabbits
AUTHOR(S): Aguiar, Juan M.; Baquero, Fernando; Jones, Jeffrey M.
CORPORATE SOURCE: Dep. Microbiol., Ramon y Cajal Hosp., Madrid, 28034, Spain
SOURCE: Journal of General Microbiology (1993), 139(12), 3005-10
CODEN: JGMIAN; ISSN: 0022-1287
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Different exocellular exts. were isolated by concentrating the supernatants of yeast- and mycelial-phase **Candida albicans** cultures incubated in a synthetic medium. The only difference between the exts. obtained from the two phases was the presence in those obtained from mycelial cultures of a polysaccharide-rich, high-mol.-mass component, migrating in **SDS-PAGE** gels at a position that would correspond to proteins with mol. masses of 245-265 kDa. The electrophoretic band patterns obtained before and after Con A- Sepharose 4B affinity column treatments confirmed that the 245-265 kDa band was the only one of mannoprotein nature. The extract obtained from 24 h mycelial-phase culture (EA) was selected as the exocellular **antigen** for this work. The dry weight of EA obtained from 1 L of culture medium was 30 mg; it contained 53% carbohydrate (18.3% glucose and 21.7% mannose measured by gas-liquid chromatog.) and 10% protein. Rabbit antisera against EA were absorbed with yeast-phase organisms and used to stain Western blots of gels loaded with EAs. These antisera clearly recognized bands in the 21, 33 and 44 kDa areas. The antiserum obtained was employed to develop a double-antibody ELISA for measuring EA concns. in a culture medium. Most of the EA was released during the exponential phase of growth.

L11 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 25 Dec 1993
ACCESSION NUMBER: 1993:668463 CAPLUS
DOCUMENT NUMBER: 119:268463
TITLE: Isolation and preliminary characterization of the 14- to 18- kilodalton Candida albicans antigen as a phospholipomannan containing β-1,2-linked oligomannosides
AUTHOR(S): Trinel, Pierre Andre; Borg-von-Zepelin, Margaret; Lepage, Gilbert; Jouault, Thierry; Mackenzie, Donald; Poulain, Daniel
CORPORATE SOURCE: Unite 42, Inst. Natl. Sante Rech. Med., Villeneuve, F-59651, Fr.
SOURCE: Infection and Immunity (1993), 61(10), 4398-405
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Western blot (immunoblot) anal. of **Candida albicans** germ tube exts. has demonstrated the probable presence of β-1,2-linked oligomannosides acting as epitopes distributed over a 14-18-kDa **antigen** unreactive to Con A. These conclusions about the existence of these non-mannan-associated oligomannoside species were reinforced in the present study by the demonstration of reactivity of factor serum 5 with the same **antigen**. A monoclonal antibody which reacted in an enzyme immunoassay with β-1,2-linked

oligomannosides converted into neoglycolipids and in Western blotting with the 14-18-kDa **antigen** from yeast and germ tubes, through metaperiodate-sensitive epitopes, was used for further characterization of the mol. Reducing agents and strong protease digestion, which have deleterious effects on **C. albicans** proteins and mannoproteins, affected neither the **antigenicity** nor the relative mol. weight of the mol. Western blot performed after migration of protease-treated exts. in polyacrylamide gels without SDS showed that the 14-18-kDa **antigen** could be neg. charged, whereas metabolic radiolabeling demonstrated that these charges could originate, at least in part, from the presence of phosphorus within the mol. Chloroform-methanol-water extraction of protease-resistant material led to purification of the 14-18-kDa **antigen**, as determined by **SDS-PAGE** and Western blotting. Metabolic radiolabeling with the mannose confirmed the presence of these sugar residues within the purified 14-18-kDa **antigen**, whereas radiolabeling with palmitic acid demonstrated its lipopolysaccharidic nature. Thus, the 14-18-kDa **antigen** is a phospholipomannan.

L11 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 16 Oct 1993
ACCESSION NUMBER: 1993:555357 CAPLUS
DOCUMENT NUMBER: 119:155357
TITLE: Antigen detection and immunological typing of Haemophilus ducreyi with a specific rabbit polyclonal serum
AUTHOR(S): Roggen, Erwin L.; Pansaerts, Resi; Van Dyck, Eddy; Piot, Peter
CORPORATE SOURCE: Dep. Infect. Immunity, Inst. Trop. Med., Antwerp, B-2000, Belg.
SOURCE: Journal of Clinical Microbiology (1993), 31(7), 1820-5
CODEN: JCMIDW; ISSN: 0095-1137
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A rabbit polyclonal serum was raised against the 29-kDa species-specific marker, as well as the 30- to 34-kDa immunotype-specific markers of Haemophilus ducreyi described elsewhere (E. Roggen, S. De Breucker, E. Van Dyck, and P. Piot, Infect. Immun. 60:590-595, 1992). These **antigens** were purified from a cocktail of Haemophilus ducreyi isolates by **sodium dodecyl sulfate-polyacrylamide gel electrophoresis**. The immune serum reacted in ELISA preferentially with Haemophilus ducreyi, at a titer as high as 50,000. To make it specific to Haemophilus ducreyi, nonspecific antibodies were removed from adsorption on a mixture of Haemophilus spp., Escherichia coli, **Candida albicans**, and Corynebacterium spp. In the 29- to 34-kDa region of immunoblot profiles from H. ducreyi isolates (n = 450), the adsorbed serum revealed essentially the same **antigens** as did a pool of well-characterized human sera. Yet, eight different immunotypes were observed With this rabbit polyclonal serum, an ELISA-based **antigen** detection test was developed. The adsorbed serum reacted specifically with all H. ducreyi isolates tested (n = 450), but not with other bacterial species (n = 15). This test was evaluated with a limited number of clin. specimens from African patients with culture-proven chancroid and no evidence for any other ulcerating etiol. (n = 10) and a number of

chancroid-neg. control patients from Belgium (n = 20). Within this context, the test yielded a sensitivity and specificity of 100%.

L11 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 21 Aug 1993
ACCESSION NUMBER: 1993:464624 CAPLUS
DOCUMENT NUMBER: 119:64624
TITLE: Molecular cloning and analysis of the NAG1 cDNA coding for glucosamine-6-phosphate deaminase from Candida albicans
AUTHOR(S): Natarajan, Krishnamurthy; Datta, Asis
CORPORATE SOURCE: Sch. Life Sci., Jawaharlal Nehru Univ., New Delhi, 110067, India
SOURCE: Journal of Biological Chemistry (1993), 268(13), 9206-14
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **C. albicans** and other pathogenic Candida species can use N-acetylglucosamine as a sole carbon source for growth. GlcNAc induces the enzymes of GlcNAc catabolic pathway; besides, under certain conditions, GlcNAc also induces a change from the yeast to germ tube morphol. Glucosamine-6-phosphate deaminase (EC 5.3.1.10) is the terminal enzyme of the GlcNAc catabolic pathway. The authors have purified the deaminase from **C. albicans** and studied its characteristics. The size of the deaminase estimated from **SDS-PAGE** is 28 kDa. N-acetylglucosamine 6-phosphate, an allosteric activator of the Escherichia coli deaminase, has no effect on the activity of the **C. albicans** enzyme. The deaminase is induced >100-fold by GlcNAc and its level is .apprx.0.3-0.5% of the proteins in crude extract Three cDNA clones were obtained from a λgt11 expression library by immunoscreening with deaminase antiserum. **C. albicans** genomic DNA blot hybridization revealed that the NAG1 gene, encoding the glucosamine-6-phosphate deaminase, is present in a single copy. Hybrid-selected translation and immunopptn. expts. revealed that the purified deaminase and the protein encoded by the clones were similar in size and in their **antigenicity**. DNA sequencing revealed that the largest cDNA clone contained the complete open reading frame, which can code for a 27.5-kDa protein. The NH2-terminal sequence (35 residues) determined from the purified deaminase was identical to the sequence of the deduced protein. The Nag1 protein has about 47% identity with the sequence of the E. coli glucosamine-6-phosphate deaminase. Furthermore, RNA blot hybridization showed that GlcNAc induces the expression of the NAG1 gene.

L11 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 07 Aug 1993
ACCESSION NUMBER: 1993:443891 CAPLUS
DOCUMENT NUMBER: 119:43891
TITLE: Heterogeneity of the purified extracellular aspartyl proteinase from Candida albicans: Characterization with monoclonal antibodies and N-terminal amino acid sequence analysis
AUTHOR(S): Morrison, Christine J.; Hurst, Steven F.; Bragg, Sandra L.; Kuykendall, Randall J.; Diaz, Humberto; Pohl, Jan; Reiss, Errol

CORPORATE SOURCE: Div. Bact. Mycotic Dis., Natl. Cent. Infect. Dis., Atlanta, GA, 30333, USA
SOURCE: Infection and Immunity (1993), 61(5), 2030-6
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Three dominant proteins (41, 48, and 49 kDa) were detected by **SDS -PAGE** in purified prepns. of the extracellular aspartic proteinase (candidapepsin) (I) of **C. albicans.** All 3 proteins bound to the specific aspartic proteinase ligand, pepstatin A, and were associated with maximum I activity. The N-terminal amino acid sequence for the 48- and 49-kDa proteins matched that reported by others for I, whereas the sequence for the 41-kDa protein was unique and was not homologous to any known protein. Time course studies demonstrated the simultaneous presence of all 3 proteins, supporting evidence that the 41- and 48-kDa proteins were not breakdown products of I. Previous studies did not detect carbohydrate in SDS-polyacrylamide gels of purified I prepns. stained with periodic acid and Ag, making glycosylation an unlikely explanation for the observed differences in the mol. wts. of the proteins. Some monoclonal antibodies directed against the 49-kDa protein reacted with the 41- and 48-kDa proteins, indicating cross-reactive epitopes. Other monoclonal antibodies, however, reacted only with the 49-kDa protein. It was concluded that 3 pepstatin A-binding proteins occur in purified I prepns.: 2 have the same amino acid N-terminus as that reported for I, whereas the 3rd has a unique sequence. All 3 proteins should be considered when undertaking studies to determine the role of I in candidal pathogenesis or when preparing specific antibodies for **antigen** capture assays.

L11 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 12 Jun 1993
ACCESSION NUMBER: 1993:229965 CAPLUS
DOCUMENT NUMBER: 118:229965
TITLE: Role of maltase in the utilization of sucrose by Candida albicans
AUTHOR(S): Williamson, Peter R.; Huber, Margret A.; Bennett, John E.
CORPORATE SOURCE: Lab. Clin. Invest., Natl. Inst. Allergy Infect. Dis., Bethesda, MD, 20892, USA
SOURCE: Biochemical Journal (1993), 291(3), 765-71
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two isoenzymes of maltase (EC 3.2.1.20) were purified to homogeneity from **Candida albicans.** Isoenzymes I and II had apparent mol. masses of 63 and 66 kDa on **SDS/PAGE** with isoelec. points of 5.0 and 4.6 resp. Both isoenzymes resembled each other in similar N-terminal sequence, specificity for the α(1→4) glycosidic linkage and immune cross-reactivity on Western blots using a maltase II **antigen**-purified rabbit antibody. Maltase was induced by growth on sucrose whereas β-fructofuranosidase activity could not be detected under similar conditions. Maltase I and II were shown to be unglycosylated enzymes by neutral sugar assay, and >90% of α-glucosidase activity was recoverable from spheroplasts. These data, in combination with other results from this laboratory showing lack of a

plausible leader sequence in genomic or mRNA transcripts, suggest an intracellular localization of the enzyme. To establish further the mechanism of sucrose assimilation by maltase, the existence of a sucrose-inducible H+/sucrose syn-transporter was demonstrated by (1) the kinetics of sucrose-induced [14C]sucrose uptake, (2) recovery of intact [14C]sucrose from ground cells by TLC and (3) transport of 0.83 mol of H+/mol of [14C]sucrose. In total, the above is consistent with a mechanism whereby sucrose is transported into **C. albicans** to be hydrolyzed by an intracellular maltase.

L11 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 06 Mar 1992
ACCESSION NUMBER: 1992:79024 CAPLUS
DOCUMENT NUMBER: 116:79024
TITLE: The major exoglucanase from Candida albicans: a non-glycosylated secretory monomer related to its counterpart from Saccharomyces cerevisiae
AUTHOR(S): Luna-Arias, Juan P.; Andaluz, Encarnacion; Ridruejo, Juan C.; Olivero, Isabel; Larriba, German
CORPORATE SOURCE: Fac. Cienc., Univ. Extremadura, Badajoz, 06071, Spain
SOURCE: Yeast (1991), 7(8), 833-41
CODEN: YESTE3; ISSN: 0749-503X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Exoglucanases secreted by two different strains from **C. albicans** have been purified to homogeneity. The purified enzyme from each strain behaved as a nonglycosylated monomer (mol. weight 38,000) that was identical in terms of **SDS-PAGE** comigration, amino acid anal. and N-terminal sequence. The amino acid composition was similar to that of the major exoglucanase from S. cerevisiae. In addition, these two enzymes displayed a 50% homol. in the first 35 amino acids of the amino terminus. Antibodies against the deglycosylated exoglucanase (treated with Endo H) from S. cerevisiae were reactive with the exoglucanase from **C. albicans** and vice versa. Immunoblotting proved to be a semiquant. method to detect **C. albicans antigen** in culture fluids. The exoglucanase from **C. albicans** appears to enter the secretory pathway without undergoing N-glycosylation.

L11 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 21 Feb 1992
ACCESSION NUMBER: 1992:56962 CAPLUS
DOCUMENT NUMBER: 116:56962
TITLE: Characterization of a monoclonal antibody (RJ5) against the immunodominant 41-kD antigen of Candida albicans
AUTHOR(S): Shen, Horng Der; Choo, Kung Bung; Yu, Kwok Woon; Ling, Win Lin; Chang, Fu Chung; Han, Shou Hwa
CORPORATE SOURCE: Dep. Med. Res., Veterans Gen. Hosp., Taipei, 11217, Taiwan
SOURCE: International Archives of Allergy and Applied Immunology (1991), 96(2), 142-8
CODEN: IAAAAM; ISSN: 0020-5915
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A 41-kD component of **C. albicans** was identified to be

the major **antigen** radioimmunopptd. by antibodies with increased titers in the sera of patients with invasive candidiasis. A mouse monoclonal antibody (RJ5) was generated which, by immunoblotting, showed pos. reactivity to the immunopptd. 41-kD component. By two-dimensional gel electrophoresis and immunoblotting, MoAb RJ5 was shown to react with different isoforms of the 41-kD component with pI values from 6.1 to 6.9. Furthermore, MoAb RJ5 showed pos. reactivity to cytoplasmic **antigens** of **C. albicans** by frozen section and immunoperoxidase staining. By **SDS-polyacrylamide gel electrophoresis** and immunoblotting, MoAb RJ5 showed no cross-reactivity to **antigens** of C. tropicalis and C. parapsilosis. The epitope of the 41-kD mol. recognized by MoAb RJ5 was susceptible to treatment of proteinase K at concns. of ≥5 μg/mL, and was relatively resistant to periodate oxidation with concentration of $NaIO_4$ up to 20 mM. This MoAb may be useful in the purification and characterization of the immunodominant 41-kD **antigen** of **C. albicans**, and as a probe in the detection of Candida **antigens** in the sera of patients with invasive candidiasis.

L11 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 09 Feb 1991
ACCESSION NUMBER: 1991:40882 CAPLUS
DOCUMENT NUMBER: 114:40882
TITLE: Lymphoproliferative and cytotoxic responses of human peripheral blood mononuclear cells to mannoprotein constituents of Candida albicans
AUTHOR(S): Torosantucci, Antonella; Palma, Carla; Boccanera, Maria; Ausiello, Clara M.; Spagnoli, Guilio C.; Cassone, Antonio
CORPORATE SOURCE: Lab. Bacteriol. Med. Mycol., Ist. Super. Sanita, Rome, 00161, Italy
SOURCE: Journal of General Microbiology (1990), 136(11), 2155-63
CODEN: JGMIAN; ISSN: 0022-1287
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two major proteoglycan constituents (designated F1 and F2) of the cell wall of **C. albicans** were separated by ion-exchange chromatog. from a crude carbohydrate-rich extract (GMP), and investigated for their chemical and mol. composition, **antigenicity** and immunomodulatory properties of cultures of human peripheral blood mononuclear cells (PBMC). Both fractions consisted predominantly of periodic acid-Schiff (PAS) and Con A-reactive material consisting of >90% mannose, 3-5% protein and small amts. of phosphorus; each was recognized by an anti-Candida rabbit serum as well as by a monoclonal antibody (mAb AF1) directed against an oligosaccharide epitope present on the fungal cell surface. When F1 and F2 were subjected to **SDS-PAGE**, transblotted and stained with enzyme-conjugated mAb AF1 or Con A, most of the antibody or lectin bound to high mol. mass (>200 kDa) polydisperse material, some of which was present in F2 (as in the starting GMP extract) but absent in F1. This difference was also observed in PAS-stained gels of the two fractions. The F2, but not the F1, constituent was as active as the unfractionated GMP extract in inducing lymphoproliferation, production of the cytokines

interleukin-2 and interferon-γ, and generation of cytotoxicity against a natural-killer-sensitive target cell line (K562). These immunomodulatory properties were, like those possessed by GMP, protease-sensitive and heat-stable. Treatment of PBMC cultures with a modulatory anti-T-cell receptor antibody abolished the lymphoproliferation induced by GMP and F2 but not that induced by phytohemagglutinin, showing that the mannoprotein materials of **C. albicans** acted through interaction with the **antigen** receptor complex.

L11 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 09 Nov 1990
ACCESSION NUMBER: 1990:569987 CAPLUS
DOCUMENT NUMBER: 113:169987
TITLE: Immunochemical studies of Aspergillus fumigatus mycelial antigens by polyacrylamide gel electrophoresis and Western blotting techniques
AUTHOR(S): Hearn, Veronica M.; Wilson, Elaine V.; Latge, J. P.; Mackenzie, D. W. R.
CORPORATE SOURCE: Mycol. Reference Lab., Cent. Public Health Lab., London, NW9 5HT, UK
SOURCE: Journal of General Microbiology (1990), 136(8), 1525-35
CODEN: JGMIAN; ISSN: 0022-1287
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Differences were detectable among strains of the opportunistic fungal pathogen A. fumigatus when water-soluble (WS) prepns. were analyzed by combined **SDS-PAGE** and Western blotting procedures. A wide range of mols. of apparent mol. masses from approx. 20 to >100 kDa showed specific binding to antibodies raised in rabbits to A. fumigatus wall and cytoplasmic components. The ability to bind antibody was markedly reduced by treatment of these **antigens** with sodium periodate or with specific proteases or glucanases. Pretreatment of blotted **antigens** with either Con A (Con A) or wheat germ agglutinin (WGA) did not, however, inhibit subsequent antibody binding. The **antigens** of subfractions prepared from a single strain of A. fumigatus WS material were also susceptible to periodate oxidation and enzymic hydrolysis. Slight cross-reactivity was apparent when crude prepns. of cellular or culture filtrate **antigens**, used to detect antibodies to **Candida albicans**, Coccidioides immitis and Cryptococcus neoformans, were probed with hyperimmune rabbit antisera to A. fumigatus. Efforts were made to characterize the WS prepns. of A. fumigatus, used as diagnostic **antigens** in many labs. The electrophoretically separated **antigenic** moieties were shown to be predominantly glycoproteins. Binding of cytoplasmic **antigens** to antibodies raised to wall material showed the presence of many common components in both wall and cytosol. Antiserum to wall components revealed most differentiation among A. fumigatus strains.

L11 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 13 Apr 1990
ACCESSION NUMBER: 1990:137071 CAPLUS
DOCUMENT NUMBER: 112:137071
TITLE: Purification and characterization of the extracellular C3d-binding protein of Candida albicans
AUTHOR(S): Saxena, Ashima; Calderone, Richard

CORPORATE SOURCE: Sch. Med., Georgetown Univ., Washington, DC, 20007, USA
SOURCE: Infection and Immunity (1990), 58(2), 309-14
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A complement C3d-binding glycoprotein was purified from the culture filtrate of **C. albicans** by preparative isoelec. focusing. The protein possessed a pI of 3.9-4.1 and inhibited rosetting of EAC3d (sheep erythrocytes conjugated to C3d) by pseudohyphae of **C. albicans**. When analyzed by **SDS-PAGE** under reducing conditions, the protein migrated as a doublet with apparent mol. masses of 55 and 60 kilodaltons (kDa) and as a 50-kDa band in nonreducing gels. These results were observed with Aurodye stain for proteins, Western immunoblot, and Con A stain, which indicates that both bands contain carbohydrate as well as **antigenic** determinants. The treatment of purified glycoprotein with endoglycosidase F but not endoglycosidases H, N, and O resulted in a complete conversion of the doublet into a faster-migrating broad band with an apparent mol. mass of 45 kDa. When the amino acid anal. of the C3d-binding protein was compared with that of the CR2 from B lymphocytes, significant differences were observed Thus, **C. albicans** secretes a C3d-binding protein during growth in vitro which appears to be different from the mammalian C3d receptor.

L11 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 13 Apr 1990
ACCESSION NUMBER: 1990:137016 CAPLUS
DOCUMENT NUMBER: 112:137016
TITLE: Distribution of water-soluble antigens and allergens of Candida albicans in blastospore cell extract fractions
AUTHOR(S): Savolainen, Johannes; Viander, M.; Koivikko, A.
CORPORATE SOURCE: Dep. Med. Microbiol., Univ. Turku, Turku, Finland
SOURCE: Allergy (Oxford, United Kingdom) (1990), 45(1), 47-53
CODEN: LLRGDY; ISSN: 0105-4538
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Water-soluble **antigens** of **C. albicans** were sequentially extracted from intact and disrupted yeast cells grown on protein-free agar and analyzed on immunoblots after **SDS-PAGE**. Washing of the cells in saline before proper extraction resulted in loss of 47.2% of the total carbohydrate and 1.5% of the total protein. The protein fraction contained 14 **antigenic** bands when analyzed with hyperimmune rabbit antisera. Four of these bound IgE when probed with a RAST-pos. serum pool and beta-galactosidase-labeled anti-IgE. Extraction of the disrupted cells resulted in 15% of the total carbohydrate and 94% of the total protein. The cytoplasmic protein fraction showed 69 **antigenic** bands, 13 of which bound IgE. The carbohydrate fraction contained mannan, which was found in the washing solns. and in the surface extract as well as in the cytoplasmic extract Allergens found in washing solns. were also present in the cytoplasmic fraction. This study suggests that the rapid release of allergens from saprophytic **C.**

albicans cells on mucous membranes of the body may cause continuous exposure and result in sensitization.

L11 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 31 Mar 1990
ACCESSION NUMBER: 1990:116855 CAPLUS
DOCUMENT NUMBER: 112:116855
TITLE: Isolation, purification, and radiolabeling of a novel 120-kD surface protein on Blastomyces dermatitidis yeasts to detect antibody in infected patients
AUTHOR(S): Klein, Bruce S.; Jones, Jeffrey M.
CORPORATE SOURCE: Med. Sch., Univ. Wisconsin, Madison, WI, 53705, USA
SOURCE: Journal of Clinical Investigation (1990), 85(1), 152-61
CODEN: JCINAO; ISSN: 0021-9738
DOCUMENT TYPE: Journal
LANGUAGE: English
AB No well-defined Blastomyces-specific **antigens** are currently available. **SDS-PAGE** and immunoblotting were used to identify immunol. active mols. in the cell wall of B. dermatitidis. A major immunoreactive 120-kD protein (WI-1) was present in all 5 strains studied and comprised 5% of the protein in the cell wall extract obtained after freezing and thawing yeast cells. WI-1 was recognized by serum from all patients with blastomycosis but by none of patients with histoplasmosis. It was purified by electroelution, radiolabeled with 125I, and incorporated into an RIA for serodiagnosis of blastomycosis. Antibody to WI-1 was detected in 58 (85%) of 68 patients with blastomycosis, in 2 (3%) of 73 patients with histoplasmosis, coccidioidomycisis, sporotrichosis, or candidiasis and in none of healthy persons. WI-1 was shown to be a surface mol. abundant on B. dermatitidis yeasts that were indirectly stained with serum from a rabbit immunized with WI-1. Approx. 0.93 pg of WI-1 or 4.7 + 106 WI-1 mols. were found on the surface of an individual yeast using an **antigen** -inhibition RIA; none was found on Histoplasma capsulatum or **Candida albicans** yeasts. Thus, WI-1 is a novel, immunol. active surface mol. on the invasive form of B. dermatitidis and WI-1 can be used to reliably detect antibody and study the immunopathogenesis of blastomycosis.

L11 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 08 Jul 1989
ACCESSION NUMBER: 1989:403796 CAPLUS
DOCUMENT NUMBER: 111:3796
TITLE: Effect of iron depletion on cell-wall antigens of Candida albicans
AUTHOR(S): Paul, T. R.; Smith, S. N.; Brown, M. R. W.
CORPORATE SOURCE: Pharm. Sci. Inst., Aston Univ., Birmingham, B4 7ET, UK
SOURCE: Journal of Medical Microbiology (1989), 28(2), 93-100
CODEN: JMMIAV; ISSN: 0022-2615
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cell walls were isolated from stationary-phase cultures of **C. albicans** grown at 25° or 37° in iron-depleted and iron-sufficient conditions. Proteins solubilized from cell-wall fractions were separated by **SDS-PAGE**. Approx. 40 protein bands were detected by Coomassie blue staining in all wall exts., regardless of temperature

or other growth condition. Sera from patients with oral or systemic candidosis, from whom the isolates were obtained, and pooled normal human serum were examined for the presence of IgG and IgM antibodies to cell-wall proteins by Western blotting. Patient sera recognized more **antigens** than pooled normal human serum. In particular, an **antigen** of 44 kda was detected by IgG antibodies in the sera of patients and 2 **antigens** of 41 and 14 kda were detected by their IgM antibodies when the sera were used as probes against walls from iron-depleted cells, but not from iron-sufficient cells, grown at 25°. Two **antigens** of 45 and 40 kda were detected by IgM antibodies in the sera of patients tested against walls from iron-depleted but not from iron-sufficient cells grown at 37°. IgG antibodies did not distinguish between these wall prepns. from cells grown at 37°. These results suggest that the specific cell-wall proteins induced during growth in iron-depleted conditions, as well as other proteins, were immunogenic and were recognized by the patients' antibodies.

L11 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 17 Oct 1987
ACCESSION NUMBER: 1987:532194 CAPLUS
DOCUMENT NUMBER: 107:132194
TITLE: **Candida albicans** and Candida tropicalis **antigens** studied by **SDS polyacrylamide gel electrophoresis** and western blot
AUTHOR(S): Bruneau, S. M.; Guinet, R. M. F.
CORPORATE SOURCE: Cent. Immunochim. Microb., Inst. Pasteur, Lyon, F-69365/07, Fr.
SOURCE: Mykosen (1987), 30(6), 271-80
CODEN: MYKSAW; ISSN: 0027-5557
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The SDS exts. of blastospores from 14 C. albicans strains and from 8 C. tropicalis strains did not show any interstrain variation of polypeptides. C. albicans And C. tropicalis exts. showed very different polypeptide patterns. No interspecies antigenic markers were detected. A major polypeptide of C. albicans and C. tropicalis was recognized by the specific anti-sp2(1) and 4 polyvalent sera and seemed expressed on the blastospore surface of the 2 species.

L11 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 07 Feb 1987
ACCESSION NUMBER: 1987:31065 CAPLUS
DOCUMENT NUMBER: 106:31065
TITLE: Identification of two germ-tube-specific cell wall antigens of Candida albicans
AUTHOR(S): Ponton, Jose; Jones, Jeffrey M.
CORPORATE SOURCE: Mem. Veterans Adm. Hosp., Univ. Wisconsin, Madison, WI, 53705, USA
SOURCE: Infection and Immunity (1986), 54(3), 864-8
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Outer cell wall layers of intact yeast- and mycelial-phase **C. albicans** B311 were extracted with dithiothreitol. Antisera against

mycelial-phase organisms were absorbed with yeast-phase organisms or yeast-phase extract and used to stain Western blots of **SDS-PAGE** gels loaded with yeast- and mycelial-phase exts. Autoradiog. of gels loaded with exts. from organisms surface-labeled with 125I was used to detect surface **antigens** containing proteins. **Antigen** bands of interest identified in Western blots were cut from the blots and used to immunize rabbits. Two **antigens** were identified in the mycelial-phase extract which were not present in the yeast-phase extract The first was a 19-kilodalton protein that was present in the cell walls of germ tubes but was not expressed on their surfaces. The second was a polysaccharide-rich high-mol.-weight **antigen** which was expressed on the surface of the germ tube. Treatment of mycelial-phase extract with protease and endo-β-N-acetylglucosaminidase H demonstrated that this **antigen** was composed of polysaccharides linked through di-N-acetylchitobiose groups to proteins.

L11 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 14 Jun 1986
ACCESSION NUMBER: 1986:205116 CAPLUS
DOCUMENT NUMBER: 104:205116
TITLE: Analysis of Candida albicans by sodium dodecyl sulfate/polyacrylamide-gel electrophoresis and immunoblotting
AUTHOR(S): Caplin, Clodagh; Reen, D. J.
CORPORATE SOURCE: Children's Res. Cent., Our Lady's Hosp. Sick Child., Dublin, Ire.
SOURCE: Biochemical Society Transactions (1986), 14(2), 435-6
CODEN: BCSTB5; ISSN: 0300-5127
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **C. albicans Antigens** were characterized by **SDS-PAGE** and immunoblotting with human antibodies. The antibody response of both adult humans and children with candida septicemia or candida urinary tract infection (UTI) was predominantly of the IgG class, and was directed against a wide range of **antigens** of 18-93 kilodaltons. Sera from all patients reacted with a 45 kilodalton band. However, the response seen in neonates with UTI differed since the antibodies produced were predominantly IgM, and reacted with 18 and 21 kilodalton bands.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 14:30:59 ON 02 SEP 2004)
L12 95 S L11
L13 35 DUP REM L12 (60 DUPLICATES REMOVED)

L13 ANSWER 1 OF 35 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2003110844 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12624045
TITLE: Differentiation of Candida albicans and Candida dubliniensis by using recombinant human antibody single-chain variable fragments specific for hyphae.
AUTHOR: Bliss Joseph M; Sullivan Mark A; Malone Jane; Haidaris Constantine G
CORPORATE SOURCE: Department of Pediatrics. Department of Microbiology and Immunology. Center for Oral Biology, University of Rochester School of Medicine and Dentistry, Rochester, New

York 14642, USA.
CONTRACT NUMBER: T32 AI07464 (NIAID)
SOURCE: Journal of clinical microbiology, (2003 Mar) 41 (3) 1152-60.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200305
ENTRY DATE: Entered STN: 20030308
Last Updated on STN: 20030503
Entered Medline: 20030502

AB To identify **antigens** specific for the filamentous form of **Candida albicans**, a combinatorial phage display library expressing human immunoglobulin heavy and light chain variable regions was used to select phage clones capable of binding to the surfaces of viable **C. albicans** filaments. Eight distinct phage clones that bound specifically to filament surface **antigens** not expressed on blastoconidia were identified. Single-chain antibody variable fragments (scFv) derived from two of these phage clones (scFv5 and scFv12) were characterized in detail. Filament-specific **antigen** expression was detected by an indirect immunofluorescence assay. ScFv5 reacted with C. dubliniensis filaments, while scFv12 did not. Neither scFv reacted with C. glabrata, C. parapsilosis, C. rugosa, C. tropicalis, or Saccharomyces cerevisiae grown under conditions that stimulated filament formation in **C. albicans** and C. dubliniensis. Epitope detection by the two scFv was sensitive to proteinase K treatment but not to periodate treatment, indicating that the cognate epitopes were composed of protein. The **antigens** reactive with scFv5 and scFv12 were extractable from the cell surface with Zymolyase, but not with sodium dodecyl sulfate (SDS) and 2-mercaptoethanol, and migrated as polydisperse, high-molecular-weight bands on **SDS-polyacrylamide gel electrophoresis** gels. The epitopes were detected on clinical specimens obtained from infants with thrush and urinary candidiasis without passage of the organisms on laboratory media, confirming epitope expression in human infection. The availability of a monoclonal immunologic reagent that recognizes filaments from both **C. albicans** and C. dubliniensis and another specific only to **C. albicans** adds to the repertoire of potential diagnostic reagents for differentiation between these closely related species.

L13 ANSWER 2 OF 35 EMBASE
on STN

ACCESSION NUMBER: 2002277903 EMBASE
TITLE: Circulating antibodies against Trichophyton rubrum antigens in sera of patients with tinea.
AUTHOR: Baran E.; Hryncewicz-Gwozdz A.; Bialynicki-Birula R.; Plomer-Niezgoda E.; Cislo M.; Polgrabia-Szwedo K.
CORPORATE SOURCE: Dr. E. Baran, Kat. i Klin. Dermatol. i Wenerol. AM, ul. T. Chalubinskiego 1, 50-368 Wroclaw, Poland
SOURCE: Mikologia Lekarska, (2001) 8/1 (7-12).
Refs: 19
ISSN: 1232-986X CODEN: MILEFO
COUNTRY: Poland

DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English; Polish

AB It was assumed that exposition to the mycotic **antigen** in the course of the mycotic infection leads to the humoral response. The purpose of the study was to examine whether circulating IgG and IgM antibodies against T. rubrum **antigens** detected by immunoblotting (**SDS-PAGE**) are present in the sera of patients with skin or nail mycosis. Another aim of our project was to compare the occurrence of various types of antibodies IgG and IgM against mycotic **antigens** in patients with mycosis with the antibody profile of the healthy subjects (control group) and of the patients with atopic dermatitis (AD). Material and methods: 35 patients with skin or nail fungal infection were examined. Mycosis was confirmed in direct examination and by culture. T. mentagrophytes was found in 11, T. rubrum in 6, M. canis in 3, **C. albicans** in 10, Scopulariopsis brevicaulis in 2 cases. Geotrichum candidum was present in 1 patient. The cultures of 2 patients were negative. The control group consisted of 25 healthy subjects and 19 patients with atopic dermatitis. Immunoblotting was applied as a very sensitive method allowing to determine antibodies against various **antigens** of the ethanol extract of T. rubrum cultures (exoantigens). Fischer's test was used for statistical evaluation of the study results. Results: Antibodies against various T. rubrum **antigens** were found in the examined sera. The most frequent antibodies were those against **antigens** of molecular weight 29.5 kD and 25.7 kD, and against two groups of **antigens** of molecular weight about 17.8 kD and about 8.9 kD. Antibodies against 25.7 kD **antigen** were present in the majority of examined subjects: patients with mycosis (31 out of 35), patients with atopic dermatitis (18 out of 19), and healthy subjects (24 out of 25). Antibodies against 29.5 kD **antigen** were present in 20 of 34 examined patients with mycosis, only in 2 subjects in the control group and in 4 with atopic dermatitis. The frequency of these antibodies appearance was statistically higher in patients with mycosis than in the healthy subjects and in patients with atopic dermatitis. Antibodies against 8.9 kD **antigen** group were present more frequently in patients with mycosis than in the control group or patients with atopic dermatitis. Conclusions: 1. Presence of antibodies against **antigens** of molecular weight 25.7 kD in majority of examined subjects, both suffering from mycosis and healthy ones, may be a proof of a wide spread of fungi in the environment, or cross-reactivity with common **antigens**. 2. Antibodies against **antigens** with molecular weight 29.5 kD seem to be specific in cases of mycoses ($p<0.05$). These mycotic **antigens** induce cross-reactions against various fungi.

L13 ANSWER 3 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2000-558256 [51] WPIDS
CROSS REFERENCE: 2000-565334 [47]
DOC. NO. CPI: C2000-166235
TITLE: Monoclonal antibodies that bind to hydrophobic cell wall proteins of Candida yeasts, useful for preventing and treating disseminated and/or mucocutaneous Candida infections.

DERWENT CLASS: B03 B04 C02 C06 D16
INVENTOR(S): BARGATZE, R F; GLEE, P M; HAZEN, K C; MASUOKA, J
PATENT ASSIGNEE(S): (LIGO-N) LIGOCYTE PHARM INC; (UYVI-N) UNIV VIRGINIA
PATENT FOUND
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000048633	A1	20000824	(200051)*	EN	55

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000033722	A	20000904	(200103)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000048633	A1	WO 2000-US4447	20000218
AU 2000033722	A	AU 2000-33722	20000218

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000033722	A	Based on	WO 2000048633

PRIORITY APPLN. INFO: US 1999-122216P 19990301; US 1999-120764P 19990219; US 1999-120765P 19990219

AN 2000-558256 [51] WPIDS
CR 2000-565334 [47]
AB WO 200048633 A UPAB: 20011129
NOVELTY - A monoclonal antibody (I) that specifically binds to an epitope of a hydrophobic cell wall protein of a yeast from the Candida genus and which inhibits the binding of the protein to tissues in the mammalian host, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an **antigen** binding fragment (I') of (I) ((I') is a Fv, Fab, Fab' or F(ab')2;

(2) a composition (II) comprising (I);

(3) a method (III) of treating candidiasis in a subject comprising administering (II);

(4) a diagnostic kit (IV) comprising (I) and a reagent for detecting binding of the antibody to a hydrophobic cell wall protein of a yeast from the Candida genus;

(5) a hybridoma cell (V) that expresses (I); and

(6) a hydrophobic cell wall protein (VI) of a yeast of the Candida genus which mediates adhesion of the yeast to a tissue of a mammalian host (the molecular weight of the protein (as determined by **SDS-PAGE** (**sodium dodecyl sulfate-**

polyacrylamide gel electrophoresis) is 36, 38, 40, 41, 54, 55 and/or 59 kDa).

ACTIVITY - Fungicidal.

MECHANISM OF ACTION - Antibody inhibition of binding/adhesion between hydrophobic cell wall proteins of yeasts of the Candida genus and host cells and/or tissues.

Cell surface hydrophobicity (CSH) status influences the attachment of **C. albicans** to various host tissue sites. CSH has also been implicated as a factor in adhesion of yeast cells to endothelial cells when tested in static adhesion assays. In order to simulate physiological shear forces present during hematogenous dissemination, an in vitro shear assay was used to investigate **C. albicans** adhesion to human umbilical vein endothelial cells (HUVEC). Initial studies demonstrated that hydrophobic yeast bound more under shear that hydrophilic cells to interleukin-1 beta activated HUVECs. Using the in vitro shear assay, the adhesion blocking ability of various monoclonal antibody reagents against Candida hydrophobic proteins were tested. HUVEC monolayers were grown on the lumenal surface of capillary tubes, activated with interleukin- 1 beta and flow established with Hepes-buffered, Hank's balanced salts solution with Ca2+ and Mg2+ containing 5% human serum to simulate shear forces in a capillary vessel. **C. albicans** isolates were cultured in defined medium at 23 deg. C to establish hydrophobic yeast cell populations. Washed yeast cells were suspended in loop medium alone, MAb (monoclonal antibodies) or control antibodies and assayed for adherence under shear (8-15 minute period, 1-2 dynes/ CM2). Adherent yeast were counted from 10-15 random fields per monolayer and the average number of heterotypic binding events (Candida-HUVEC) and homotypic binding events (Candida-Candida) was determined. MAb 6C5, which recognized a 38 kDa hydrophobic protein in that was more abundant on **C. albicans** hyphal surfaces than on hydrophobic yeasts, significantly reduced both kinds of binding events when compared to control conditions. The results indicate that blocking hydrophobic proteins on the surface of **C. albicans** yeast cells can decrease adhesion events occurring under shear.

USE - Compositions (i.e. (II)) comprising the antibody (I) may be administered for the prevention and/or treatment of disseminated and/or mucocutaneous Candida infections (i.e. method (III)). The antibodies may also be used as diagnostic agents for detection of Candida proteins in samples (i.e. using the diagnostic kit (IV)) (claimed). The 2 most common forms of candidiasis are mucocutaneous candidiasis (e.g. stomatitis or thrush, esophagitis and/or vaginitis) and invasive or deep organ candidiasis (e.g. fungemia, endocarditis and endophthalmitis) (see Dismukes, Candidiasis, in Cecil's Textbook of Medicine, 1827-1830 (Bennet et al., Eds.)).

Dwg.0/7

L13 ANSWER 4 OF 35 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1999:313292 SCISEARCH

THE GENUINE ARTICLE: 187KF

TITLE: Characterization of Candida albicans antigenic determinants by two-dimensional polyacrylamide gel electrophoresis and enhanced chemiluminescence

AUTHOR: Barea P L; Calvo E; Rodriguez J A; Rementeria A; Calcedo R; Sevilla M J; Ponton J; Hernando F L (Reprint)

CORPORATE SOURCE: UNIV PAIS VASCO, FAC CIENCIAS, DEPT INMUNOL MICROBIOL &

PARASITOL, APARTADO 644, E-48080 BILBAO, VIZCAYA, SPAIN (Reprint); UNIV PAIS VASCO, FAC CIENCIAS, DEPT INMUNOL MICROBIOL & PARASITOL, E-48080 BILBAO, VIZCAYA, SPAIN; UNIV PAIS VASCO, FAC FARM, E-48080 BILBAO, SPAIN; UNIV PAIS VASCO, FAC MED & ODONTOL, E-48080 BILBAO, SPAIN
COUNTRY OF AUTHOR: SPAIN
SOURCE: FEMS IMMUNOLOGY AND MEDICAL MICROBIOLOGY, (APR 1999) Vol. 23, No. 4, pp. 343-354.
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
ISSN: 0928-8244.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 32

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The use of a two-dimensional polyacrylamide gel electrophoresis joined with Western blotting allowed us to investigate the reactivities of antibodies present in sera from mice and humans to antigens of Candida albicans blastoconidia. The analysis of the antibody response in the two models studied and the comparison between the antibody response in infected and noninfected individuals showed that the infection by C, albicans produces changes in the antibody response which may be of relevance in the serodiagnosis of invasive candidiasis. These changes include the induction of antibodies against new antigens, the disappearance of antibodies against a group of antigens and variations in the reactivity of antibodies directed to a different group of antigens. The technique used resolved the isoforms of several antigens including enolase. It is concluded that the antibody response in humans and mice with candidiasis is not homogeneously directed to all the isoforms of an antigen. (C) 1999 Federation of European Microbiological Societies. Published by Elsevier Science B.V. All rights reserved.

ACCESSION NUMBER: 2000:14917 BIOSIS
DOCUMENT NUMBER: PREV200000014917
TITLE: Serum induces protein fibrils expression in Candida albicans.
AUTHOR(S): Kim, Donghwa [Reprint author]; Shin, Woon-Seob [Reprint author]; Lee, Kyoung-Ho [Reprint author]; Koh, Choon-Myung [Reprint author]
CORPORATE SOURCE: Department of Microbiology, Institute of Basic Medical Sciences, Yonsei University Wonju College of Medicine, Wonju, Kangwon-Do, Seoul, 220-701, South Korea
SOURCE: Journal of the Korean Society for Microbiology, (June, 1999) Vol. 34, No. 3, pp. 277-283. print.
CODEN: TMHCDX. ISSN: 0253-3162.
DOCUMENT TYPE: Article
LANGUAGE: Korean
ENTRY DATE: Entered STN: 29 Dec 1999
Last Updated on STN: 31 Dec 2001

AB The fibrillar coat of **Candida albicans** is of interest as its significance in **antigenicity**, antiphagocytosis, and adherence to host tissues. The partial biochemical properties and ultrastructure of fibrillar coat induced by rabbit sera were examined.

The induced fibrillar layer was destroyed by treatments of lyticase, proteinase K and dithiothreitol. The total protein concentration of fibrillar cell wall lysate was higher than that of non-fibrillar cell wall lysate, but the total sugar concentration was similar. On **SDS-PAGE** analysis, the protein profiles between in fibrillar cells and in non-fibrillar cells were shown to be different. In fibrillar cells, the major bands of cell wall lysate were 83, 66, 54, 47, 33, and 26 kDa in dithiothreitol-treated lysate. The proteins of 26 and 19 kDa were predominant in lyticase-treated lysate. Although the fibrillar thickness and protein amount of cell wall lysate were increased in according to the incubation time, the protein profiles did not ch anged. These results suggest that the proteins of 83, 66, 54, 47, 33, 26, and 19 kDa may be major constituents of fibrillar coat in **C. albicans**.

L13 ANSWER 6 OF 35 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 1998300439 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9636810
TITLE: IgE, IgA, and IgG responses to common yeasts in atopic patients.
AUTHOR: Savolainen J; Kortekangas-Savolainen O; Nermes M; Viander M; Koivikko A; Kalimo K; Terho E O
CORPORATE SOURCE: Department of Pulmonary Diseases, University of Turku, Finland.
SOURCE: Allergy, (1998 May) 53 (5) 506-12.
Journal code: 7804028. ISSN: 0105-4538.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 19980925
Last Updated on STN: 19980925
Entered Medline: 19980911

AB This study was undertaken to analyze the differences in exposure and sensitization to five common environmental yeasts. The responses of IgG, IgA, and IgE to **Candida albicans**, C. utilis, Cryptococcus albidus, Rhodotorula rubra, and Saccharomyces cerevisiae and purified S. cerevisiae enolase were analyzed by immunoblotting (IgE-IB), and the cross-reactivity of their IgE-binding components by IgE-IB inhibition. Twenty atopic subjects, with asthma, allergic rhinitis, or atopic dermatitis were included. In skin prick tests (SPT), 12 of the patients showed simultaneous reactivity to at least two of the five yeasts, four reacted to one of the yeasts, and four had no responses. **Antigens** run in **SDS-PAGE** and transferred to nitrocellulose were probed with enzyme-labeled IgA-, IgG-, and IgE-specific antibodies. The IgE immunoblotting revealed most IgE-binding bands in **C. albicans** (11 bands) followed by C. utilis (eight bands), S. cerevisiae (five bands), R. rubra (five bands), and Cr. albidus (four bands). Six of the IgE-binding bands of **C. albicans** and C. utilis shared molecular weight, and only two bands shared molecular weight with other yeasts. These were the 46-kDa band, shared by all five yeasts, and a 13-kDa band shared by four yeasts. Prominent IgE binding was seen to a 46-kDa band of **C. albicans** (seven patients), C. utilis (five patients), and S. cerevisiae (one patient) and to corresponding weak bands of Cr. albidus and R. rubra (one patient). The possible cross-reactivity of the 46-kDa

band was analyzed by IgE-IB inhibition and densitometry, revealing clear **C. albicans** inhibition of C. utilis (80%) and enolase (98%) (autoinhibition 100%). The strongest IgG responses were seen against S. cerevisiae and **C. albicans**. The responses were mainly against mannans of **C. albicans** and S. cerevisiae, suggesting that most of the exposure is to these yeasts. Yeasts with different types of exposure, from saprophytic growth on human mucous membranes to exposure by air and food, were shown to cross-react at the allergenic level. Atopic patients primarily sensitized by **C. albicans** and S. cerevisiae may develop allergic symptoms by exposure to other environmental yeasts due to cross-reacting IgE antibodies.

L13 ANSWER 7 OF 35 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 97:506938 SCISEARCH
THE GENUINE ARTICLE: XH199
TITLE: Purification and characterization of extracellular aspartic proteinase of Candida albicans
AUTHOR: Na B K (Reprint); Lee S I; Kim S O; Park Y K; Bai G H; Kim S J; Song C Y
CORPORATE SOURCE: CHUNG ANG UNIV, FAC NAT SCI, DEPT BIOL, SEOUL 156756, SOUTH KOREA; KOREAN INST TB, SEOUL 137140, SOUTH KOREA
COUNTRY OF AUTHOR: SOUTH KOREA
SOURCE: JOURNAL OF MICROBIOLOGY, (JUN 1997) Vol. 35, No. 2, pp. 109-116.
Publisher: MICROBIOLOGY SOC KOREA, KOREA SCIENCE & TECHNOLOGY CENTER 803, 635-4 YEOGSAM-DONG, KANGNAM-KU, SEOUL 135-703, SOUTH KOREA.
ISSN: 1225-8873.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 34
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB An extracellular proteinase of **Candida albicans** was purified by a combination of 0-75% ammonium sulfate precipitation, DEAE Sepharose Fast Flow ion exchange chromatography, and Sephacryl S-200 HR molecular sieve chromatography. Its molecular weight was approximately 41 kDa on **SDS-PAGE** and isoelectric point was 4.4. The enzyme was inhibited by pepstatin A. Optimum enzyme activity ranged from pH 2.0 to 3.5 with its maximum at pH 2.5 and a temperature of 45 degrees C. The addition of divalent cations, Ca2+, Zn2+ and Mg2+, resulted in no significant inhibition of enzymatic activity. However, some inhibitory effects were observed by Fe2+, Ag2+ and Cu2+. With BSA as substrate, an apparent K-m was determined to be 7x10(-7) M and K-i, using pepstatin A as an inhibitor, was 8.05x10(-8) M. N-terminal amino acid sequence was QAVPVTLX-NEQ. Degradation of BSA and fibronectin was shown but not collagen, hemoglobin, immunoglobulin G, or lysozyme. The enzyme preferred peptides with Glu and Leu at the P-1 position, but the enzyme activity was highly reduced when the P-2 position was Phe or Pro. This enzyme showed **antigenicity** against sera of patients with candidiasis.

L13 ANSWER 8 OF 35 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 96124488 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8560740
TITLE: Production and use of monoclonal antibodies to Microsporum

canis.
AUTHOR: Pinter L; Ellis H J; Ciclitira P J; Noble W C
CORPORATE SOURCE: Department of Microbiology and Infectious Diseases, Veterinary Faculty University of Zagreb, Croatia.
SOURCE: Veterinary microbiology, (1995 Oct) 46 (4) 435-44.
Journal code: 7705469. ISSN: 0378-1135.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199602
ENTRY DATE: Entered STN: 19960312
Last Updated on STN: 19960312
Entered Medline: 19960227

AB Microsporum canis NCPF 179 and M. canis NCPF 177 dermatophyte cytoplasmic extracts (DCEs) were used as **antigens** to generate monoclonal antibodies (mAbs). Hybridomas with supernatants of optical density (OD) > 1 for homologous dermatophyte cytoplasmic extracts (CE) and OD < 0.5 for heterologous CE of **Candida albicans** tested by the enzyme-linked immunosorbent assays (ELISA) were selected for cloning. mAbs secreted by cloned hybridoma lines were screened against CE of M. canis, M. gypseum, M. equinum, M. distortum, Trichophyton verrucosum, **C . albicans**, Malassezia pachydermatis and Aspergillus fumigatus. The ELISA performed on clone supernatants identified a variety of different activities between the dermatophyte and other fungal CEs. The selected mAbs were used for immunoblotting of native and **sodium dodecyl sulphate-polyacrylamide gel electrophoresis** (**SDS-PAGE**) gels. Immunoblots with some of the mAbs tested allowed the differentiation of strains belonging to different dermatophyte species and isolates belonging to the M. canis.

L13 ANSWER 9 OF 35 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 96163859 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8589662
TITLE: Purification of a Candida albicans germ tube specific antigen.
AUTHOR: Marot-Leblond A; Robert R; Senet J M; Palmer T
CORPORATE SOURCE: Laboratoire d'Immunologie-Parasitologie, UFR des Sciences Medicales et Pharmaceutiques, Angers, France.
SOURCE: FEMS immunology and medical microbiology, (1995 Oct) 12 (2) 127-36.
Journal code: 9315554. ISSN: 0928-8244.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199603
ENTRY DATE: Entered STN: 19960404
Last Updated on STN: 19960404
Entered Medline: 19960327

AB In a previous work, Marot-Leblond et al. identified a **Candida albicans** germ tube-specific **antigen** by the use of a monoclonal antibody (mAb 3D9.3). In the present report, we used a two-step procedure to obtain a purified preparation of this **antigen** from a Zymolyase extract of **Candida**

albicans germ tubes. The extract was first fractionated by gel filtration chromatography. The immunoreactive fractions were pooled, and the 3D9.3 **antigen** was further purified by hydrophobic interaction chromatography using a Phenyl-superose column. Analysis by **SDS-PAGE**, immunoblotting and Concanavalin A staining, revealed a single, polydisperse band ranging from 110 to 170 kDa. The **antigen** was purified 126-fold by protein content and 16.4-fold by carbohydrate content. Recovery of the **antigen** was 6.8% following the two-step purification.

L13 ANSWER 10 OF 35 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1994:489700 BIOSIS
DOCUMENT NUMBER: PREV199497502700
TITLE: Study of germ tube-specific antigens of Candida albicans.
AUTHOR(S): Wang, Lu; Ye, Qing-Yi; Tang, Shu-Qian
CORPORATE SOURCE: Dep. Dermatol., South-West Hosp., Third Military Med. Coll., Chongqing 630038, China
SOURCE: Zhonghua Pifuke Zazhi, (1994) Vol. 27, No. 3, pp. 136-138, 188.
CODEN: CHFTAJ. ISSN: 0412-4030.
DOCUMENT TYPE: Article
LANGUAGE: Chinese
ENTRY DATE: Entered STN: 9 Nov 1994
Last Updated on STN: 9 Nov 1994

AB By IIF, **SDS-PAGE** and Western blot technique, it was confirmed that there were germ tube-specific **antigens** on the surfaces of germ tubes of **C. albicans** which were isolated from clinical specimens. The mycelial-phase extract of **C. albicans** contained a more varied array of proteins than those of the yeast-phase extract. We found a protein component (molecular weight, 39,000) in cell wall extracts of mycelial-phase, which may be a germ tube-specific **antigen** of **C. albicans**. It is our opinion that there may be germ tube **antigens** in a cryptic state not only in the cell walls of yeast-phase of **C. albicans** but in other candida species.

L13 ANSWER 11 OF 35 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER: 93252778 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7683645
TITLE: Molecular cloning and analysis of the NAG1 cDNA coding for glucosamine-6-phosphate deaminase from Candida albicans.
AUTHOR: Natarajan K; Datta A
CORPORATE SOURCE: School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.
SOURCE: Journal of biological chemistry, (1993 May 5) 268 (13) 9206-14.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L07558
ENTRY MONTH: 199306
ENTRY DATE: Entered STN: 19930618
Last Updated on STN: 19980206

Searcher : Shears 571-272-2528

Entered Medline: 19930604

AB **Candida albicans** and other pathogenic Candida species can use N-acetylglucosamine as a sole carbon source for growth. GlcNAc induces the enzymes of GlcNAc catabolic pathway; besides, under certain conditions, GlcNAc also induces a change from the yeast to germ tube morphology. Glucosamine-6-phosphate deaminase (EC 5.3.1.10) is the terminal enzyme of the GlcNAc catabolic pathway. We have purified the deaminase from **C. albicans** and studied its characteristics. The size of the deaminase estimated from **SDS-polyacrylamide gel electrophoresis** is 28 kDa. N-Acetylglucosamine 6-phosphate, an allosteric activator of the Escherichia coli deaminase, has no effect on the activity of the **C. albicans** enzyme. The deaminase is induced over 100-fold by GlcNAc and its level is about 0.3-0.5% of the proteins in crude extract. Three cDNA clones were obtained from a lambda gt11 expression library by immunoscreening with deaminase antiserum. **C. albicans** genomic DNA blot hybridization revealed that the NAG1 gene, encoding the glucosamine-6-phosphate deaminase, is present in a single copy. Hybrid-selected translation and immunoprecipitation experiments revealed that the purified deaminase and the protein encoded by the clones were similar in size and in their **antigenicity**. DNA sequencing revealed that the largest cDNA clone contained the complete open reading frame, which can code for a 27.5-kDa protein. The NH2-terminal sequence (35 residues) determined from the purified deaminase was identical to the sequence of the deduced protein. The Nag1 protein has about 47% identity with the sequence of the E. coli glucosamine-6-phosphate deaminase. Furthermore, RNA blot hybridization showed that GlcNAc induces the expression of NAG1 gene.

L13 ANSWER 12 OF 35 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 94011333 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8406831
TITLE: Isolation and preliminary characterization of the 14- to 18-kilodalton Candida albicans antigen as a phospholipomannan containing beta-1,2-linked oligomannosides.
AUTHOR: Trinel P A; Borg-von-Zepelin M; Lepage G; Jouault T; Mackenzie D; Poulain D
CORPORATE SOURCE: Unite 42, Institut National de la Sante et de la Recherche Medicale, Domaine du CERTIA, Villeneuve d'Ascq, France.
SOURCE: Infection and immunity, (1993 Oct) 61 (10) 4398-405. Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199311
ENTRY DATE: Entered STN: 19940117
Last Updated on STN: 19940117
Entered Medline: 19931116

AB Western blot (immunoblot) analysis of **Candida albicans** germ tube extracts has demonstrated the probable presence of beta-1,2-linked oligomannosides acting as epitopes distributed over a 14- to 18-kDa **antigen** unreactive to concanavalin A. These conclusions about the existence of these non-mannan-associated oligomannoside species were reinforced in the present study by the

demonstration of reactivity of factor serum 5 (Iatron Laboratories) with the same **antigen.** A monoclonal antibody which reacted in an enzyme immunoassay with beta-1,2-linked oligomannosides converted into neoglycolipids and in Western blotting with the 14- to 18-kDa **antigen** from yeast and germ tubes, through metaperiodate-sensitive epitopes, was used for further characterization of the molecule. Reducing agents and strong protease digestion, which have deleterious effects on **C. albicans** proteins and mannoproteins, affected neither the **antigenicity** nor the relative molecular weight of the molecule. Western blots performed after migration of protease-treated extracts in polyacrylamide gels without sodium dodecyl sulfate (SDS) showed that the 14- to 18-kDa **antigen** could be negatively charged, whereas metabolic radiolabeling demonstrated that these charges could originate, at least in part, from the presence of phosphorus within the molecule. Chloroform-methanol-water extraction of protease-resistant material led to purification of the 14- to 18-kDa **antigen,** as determined by **SDS-polyacrylamide gel electrophoresis** and Western blotting. Metabolic radiolabeling with mannose confirmed the presence of these sugar residues within the purified 14- to 18-kDa **antigen** (despite its nonreactivity to concanavalin A), whereas radiolabeling with palmitic acid demonstrated its lipopolysaccharidic nature. Together, these results led to the conclusion that the 14- to 18-kDa **antigen** is a phospholipomannan.

L13 ANSWER 13 OF 35 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 93239312 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8478090
TITLE: Heterogeneity of the purified extracellular aspartyl proteinase from Candida albicans: characterization with monoclonal antibodies and N-terminal amino acid sequence analysis.
AUTHOR: Morrison C J; Hurst S F; Bragg S L; Kuykendall R J; Diaz H; Pohl J; Reiss E
CORPORATE SOURCE: Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia 30333.
SOURCE: Infection and immunity, (1993 May) 61 (5) 2030-6.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199305
ENTRY DATE: Entered STN: 19930611
Last Updated on STN: 20000303
Entered Medline: 19930524

AB Three dominant proteins (41, 48, and 49 kDa) were detected by **sodium dodecyl sulfate-polyacrylamide gel electrophoresis** (**SDS-PAGE**) in purified preparations of the extracellular aspartyl proteinase (AP) of **Candida albicans.** All three proteins bound to the specific carboxyl proteinase ligand, pepstatin A, and were associated with maximum AP activity. The N-terminal amino acid sequence for the 48- and 49-kDa proteins matched that reported by others for AP, whereas the sequence for the 41-kDa protein was unique and was not homologous to any known protein. Time course studies demonstrated the simultaneous presence of all three proteins, supporting evidence that the 41- and 48-kDa

proteins were not breakdown products of AP. Previous studies did not detect carbohydrate in SDS-polyacrylamide gels of purified AP preparations stained with periodic acid and silver, making glycosylation an unlikely explanation for the observed differences in the molecular masses of the proteins. Some monoclonal antibodies directed against the 49-kDa protein reacted with the 41- and 48-kDa proteins, indicating cross-reactive epitopes. Other monoclonal antibodies, however, reacted only with the 49-kDa protein. We conclude that three pepstatin A-binding proteins occur in purified AP preparations: two have the same amino acid N terminus as that reported for AP, whereas the third has a unique sequence. All three proteins should be considered when undertaking studies to determine the role of AP in candidal pathogenesis or when preparing specific antibodies for **antigen** capture assays.

L13 ANSWER 14 OF 35 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 93352743 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8349759
TITLE: Antigen detection and immunological typing of Haemophilus ducreyi with a specific rabbit polyclonal serum.
AUTHOR: Roggen E L; Pansaerts R; Van Dyck E; Piot P
CORPORATE SOURCE: Department of Infection and Immunity, Institute of Tropical Medicine, Antwerp, Belgium.
SOURCE: Journal of clinical microbiology, (1993 Jul) 31 (7) 1820-5. Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199309
ENTRY DATE: Entered STN: 19931001
Last Updated on STN: 19931001
Entered Medline: 19930914

AB A rabbit polyclonal serum was raised against the 29-kDa species-specific marker, as well as the 30- to 34-kDa immunotype-specific markers of Haemophilus ducreyi described elsewhere (E. Roggen, S. De Breucker, E. Van Dyck, and P. Piot, Infect. Immun. 60:590-595, 1992). These **antigens** were purified from a cocktail of H. ducreyi isolates by **sodium dodecyl sulfate-polyacrylamide gel electrophoresis**. The immune serum reacted in enzyme-linked immunosorbent assay (ELISA) preferentially with H. ducreyi, at a titer as high as 50,000. To make it specific to H. ducreyi, nonspecific antibodies were removed by adsorption on a mixture of Haemophilus spp., Escherichia coli, **Candida albicans**, and Corynebacterium spp. In the 29- to 34-kDa region of immunoblot profiles from H. ducreyi isolates (n = 450), the adsorbed serum revealed essentially the same **antigens** as did a pool of well-characterized human sera. Yet, eight different immunotypes were observed. With this rabbit polyclonal serum, an ELISA-based **antigen** detection test was developed. The adsorbed serum reacted specifically with all H. ducreyi isolates tested (n = 450), but not with other bacterial species (n = 15). This test was evaluated with a limited number of clinical specimens from African patients with culture-proven chancroid and no evidence for any other ulcerating etiology (n = 10) and a number of chancroid-negative control patients from Belgium (n = 20). Within this context, the test yielded a sensitivity and specificity of 100%.

L13 ANSWER 15 OF 35 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 93256885 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8489504
TITLE: Role of maltase in the utilization of sucrose by Candida albicans.
AUTHOR: Williamson P R; Huber M A; Bennett J E
CORPORATE SOURCE: Clinical Mycology Section, National Institute of Allergy and Infectious Disease, National Institutes of Health, Bethesda, MD 20892.
SOURCE: Biochemical journal, (1993 May 1) 291 (Pt 3) 765-71. Journal code: 2984726R. ISSN: 0264-6021.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199306
ENTRY DATE: Entered STN: 19930618
Last Updated on STN: 19970203
Entered Medline: 19930608

AB Two isoenzymes of maltase (EC 3.2.1.20) were purified to homogeneity from **Candida albicans**. Isoenzymes I and II were found to have apparent molecular masses of 63 and 66 kDa on **SDS/PAGE** with isoelectric points of 5.0 and 4.6 respectively. Both isoenzymes resembled each other in similar N-terminal sequence, specificity for the alpha(1-->4) glycosidic linkage and immune cross-reactivity on Western blots using a maltase II **antigen** -purified rabbit antibody. Maltase was induced by growth on sucrose whereas beta-fructofuranosidase activity could not be detected under similar conditions. Maltase I and II were shown to be unglycosylated enzymes by neutral sugar assay, and more than 90% of alpha-glucosidase activity was recoverable from spheroplasts. These data, in combination with other results from this laboratory [Geber, Williamson, Rex, Sweeney and Bennett (1992) J. Bacteriol. 174, 6992-6996] showing lack of a plausible leader sequence in genomic or mRNA transcripts, suggest an intracellular localization of the enzyme. To establish further the mechanism of sucrose assimilation by maltase, the existence of a sucrose-inducible H+/sucrose syn-transporter was demonstrated by (1) the kinetics of sucrose-induced [14C]sucrose uptake, (2) recovery of intact [14C]sucrose from ground cells by t.l.c. and (3) transport of 0.83 mol of H+/mol of [14C]sucrose. In total, the above is consistent with a mechanism whereby sucrose is transported into **C. albicans** to be hydrolysed by an intracellular maltase.

L13 ANSWER 16 OF 35 MEDLINE on STN DUPLICATE 10
ACCESSION NUMBER: 93329198 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8335981
TITLE: Identification of a 65-kDa mannoprotein as a main target of human cell-mediated immune response to Candida albicans.
AUTHOR: Torosantucci A; Bromuro C; Gomez M J; Ausiello C M; Urbani F; Cassone A
CORPORATE SOURCE: Laboratory of Bacteriology and Medical Mycology, Istituto Superiore di Sanita, Rome, Italy.
SOURCE: Journal of infectious diseases, (1993 Aug) 168 (2) 427-35. Journal code: 0413675. ISSN: 0022-1899.
PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199308
ENTRY DATE: Entered STN: 19930903
Last Updated on STN: 19930903
Entered Medline: 19930824

AB To identify molecular targets of anticandidal cell-mediated immunity (CMI) in humans, a highly immunogenic mannoprotein fraction (MP-F2) of **Candida albicans** was studied. **SDS-PAGE** and gel-permeation chromatography separated MP-F2 into polydisperse mannoproteins of > 200-31.5 kDa. However, only a 65-kDa constituent specifically induced proliferation of human peripheral blood mononuclear cells (PBMC). Lymphoproliferation was accompanied by production of interleukin (IL)-1 beta, interferon-gamma, and IL-6 but not IL-4. MP-F2- and MP-65-induced PBMC proliferation was inhibited by an antagonist anti-T cell receptor antibody. Neither the purified protein derivative of Mycobacterium tuberculosis nor MP-65 activated naive lymphocytes from umbilical cord blood, although these cells proliferated extensively in response to both phytohemagglutinin and IL-2. These data strongly suggest that MP-65 is an immunodominant mannoprotein **antigen** that is ordinarily expressed as a target of anti-Candida CMI in healthy humans.

L13 ANSWER 17 OF 35 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 93058241 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1432488
TITLE: Immunoblotting analysis of sera from patients with candidal vaginitis and healthy females.
AUTHOR: Ishiguro A; Homma M; Sukai T; Higashide K; Torii S; Tanaka K
CORPORATE SOURCE: Laboratory of Medical Mycology, Nagoya University School of Medicine, Japan.
SOURCE: Journal of medical and veterinary mycology : bi-monthly publication of the International Society for Human and Animal Mycology, (1992) 30 (4) 281-92.
Journal code: 8605493. ISSN: 0268-1218.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199212
ENTRY DATE: Entered STN: 19930122
Last Updated on STN: 20000303
Entered Medline: 19921218

AB **Antigenic** components of **Candida albicans** were extracted from whole cells with a buffer containing SDS and 2-mercaptoethanol, and separated by **SDS-polyacrylamide gel electrophoresis**. The components reactive with IgG, IgA, IgM and IgE antibodies in sera from patients with (14 subjects) and without (15 subjects) **C. albicans** in the vagina, and from healthy females (34 subjects), were investigated by immunoblotting using immunoglobulin class-specific antibodies. Many components reacted with IgG and IgA in all sera tested; the major **antigens** that reacted strongly with the sera were 67, 62, 29 and 25 kDa components. Several components were observed which reacted with IgM in 63% of the

sera; the 67, 62 and 25 kDa components that reacted with IgG and IgA also reacted with IgM. No components reacting with IgE were detected in any of the sera. No striking differences in antibody binding profiles to whole cell **antigens** were detected among the **C. albicans** positive and negative patients or the healthy subjects. On the other hand, IgG against extracellular proteinase was more frequently detected in the **C. albicans** positive patients than in the **C. albicans** negative group or the healthy subjects. This may suggest that vaginal infection with **C. albicans** contributes to a rise in anti-proteinase antibody levels.

L13 ANSWER 18 OF 35 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 92160390 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1789004
TITLE: The major exoglucanase from Candida albicans: a non-glycosylated secretory monomer related to its counterpart from Saccharomyces cerevisiae.
AUTHOR: Luna-Arias J P; Andaluz E; Ridruejo J C; Olivero I; Larriba G
CORPORATE SOURCE: Departamento de Microbiologia, Facultad de Ciencias, Universidad de Extremadura, Badajoz, Spain.
SOURCE: Yeast (Chichester, England), (1991 Nov) 7 (8) 833-41. Journal code: 8607637. ISSN: 0749-503X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199203
ENTRY DATE: Entered STN: 19920410
Last Updated on STN: 19920410
Entered Medline: 19920324

AB Exoglucanases secreted by two different strains from **Candida albicans** have been purified to homogeneity. The purified enzyme from each strain behaved as a non-glycosylated monomer (molecular weight 38,000) that was identical in terms of **sodium dodecyl sulphate/polyacrylamide gel electrophoresis** comigration, amino acid analysis and amino terminal sequence. The amino acid composition was similar to that of the major exoglucanase from Saccharomyces cerevisiae. In addition, these two enzymes displayed a 50% homology in the first 35 amino acids of the amino terminus. Antibodies against the deglycosylated exoglucanase (treated with Endo H) from S. cerevisiae were reactive with the exoglucanase from **C. albicans** and vice versa. Immunoblotting proved to be a semiquantitative method to detect **C. albicans antigen** in culture fluids. The exoglucanase from **C. albicans** appears to enter the secretory pathway without undergoing N-glycosylation.

L13 ANSWER 19 OF 35 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 92136159 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1777830
TITLE: The 40-kilodalton allergen of Candida albicans is an alcohol dehydrogenase: molecular cloning and immunological analysis using monoclonal antibodies.
AUTHOR: Shen H D; Choo K B; Lee H H; Hsieh J C; Lin W L; Lee W R;

	Han S H
CORPORATE SOURCE:	Department of Medical Research, Veterans General Hospital, Taipei, Taiwan, Republic of China.
SOURCE:	Clinical and experimental allergy : journal of the British Society for Allergy and Clinical Immunology, (1991 Nov) 21 (6) 675-81. Journal code: 8906443. ISSN: 0954-7894.
PUB. COUNTRY:	ENGLAND: United Kingdom
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	199203
ENTRY DATE:	Entered STN: 19920329 Last Updated on STN: 19920329 Entered Medline: 19920312

AB To characterize the 40-kilodalton (kD) major allergen of **Candida albicans** (**C. albicans**), six monoclonal antibodies (MoAbs) against this allergen were generated. In **SDS -polyacrylamide gel electrophoresis** and immunoblot analysis, these MoAbs showed four different reaction patterns to **antigens** of six different Candida species. With the exception of one MoAb, other MoAbs were resistant to periodate treatment indicating non-carbohydrate epitopes were probably being recognized by these MoAbs. These MoAbs were used in the molecular cloning and immunological analysis of the gene coding for the 40-kD allergen. Nucleotide sequence determination of the two lambda gt11 cDNA clones obtained showed that the 40-kD allergen is an alcohol dehydrogenase (ADH) which shares a 70% amino acid sequence homology with the ADH isozyme I of Saccharomyces cerevisiae. This finding was confirmed by positive immunological response of the lysates of the clones obtained and a preparation of ADH of Saccharomyces cerevisiae to various MoAbs and to IgE antibodies in sera of allergic patients.

L13 ANSWER 20 OF 35 MEDLINE on STN DUPLICATE 14

ACCESSION NUMBER:	92269056 MEDLINE
DOCUMENT NUMBER:	PubMed ID: 1815028
TITLE:	Biochemical and antigenic characterization of mannoprotein constituents released from yeast and mycelial forms of Candida albicans.
AUTHOR:	Torosantucci A; Gomez M J; Bromuro C; Casalinuovo I; Cassone A
CORPORATE SOURCE:	Laboratory of Bacteriology and Medical Mycology, Istituto Superiore di Sanita, Rome, Italy.
SOURCE:	Journal of medical and veterinary mycology : bi-monthly publication of the International Society for Human and Animal Mycology, (1991) 29 (6) 361-72. Journal code: 8605493. ISSN: 0268-1218.
PUB. COUNTRY:	ENGLAND: United Kingdom
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	199206
ENTRY DATE:	Entered STN: 19920710 Last Updated on STN: 19970203 Entered Medline: 19920625

AB Yeast or mycelial cultures of **Candida albicans**

released comparable amounts of Concanavalin A-reactive mannoprotein material after 24-h of growth, and in both cases this material showed a qualitatively similar **SDS-PAGE** pattern, with predominantly polydisperse constituents of high molecular mass. The two secretion mixtures also showed similar reactivity by ELISA with serum from a subject with high titre anti-Candida antibodies, as well as with an anti-Candida hyperimmune antiserum raised in rabbits. Both secreted extracts were separated by ion-exchange chromatography into two major fractions (designated F1 and F2), each containing mannoprotein **antigens** recognized by rabbit and human sera, although the immunoreactivity of the two fractions from the two growth forms was not uniform. The mannoproteins released from mycelial cultures, in particular those present in the F1 fraction, were poorly reactive or not reactive at all in ELISA with a monoclonal antibody (mAbAF1) which strongly recognized the material released from yeast cultures. Immunoblots of the more acidic, more **antigenic** F2 fractions with mAbAF1 and polyclonal anti-Candida antisera demonstrated that the monoclonal antibody did not recognize several mannoprotein molecules which were recognized by the polyclonal antibodies, in particular a 45-47 kDa component present only in the secreted extract from mycelium. A quantitative ELISA-inhibition method showed that the rate of release of mannoprotein **antigen** during growth in the yeast form was either constant (as assayed with polyclonal antibodies) or fluctuated without any definite trend (as seen with mAbAF1). On the other hand, cultures of mycelial cells exhibited an early (90 min) peak of **antigen** release, followed by either a decrease to a rate corresponding to that of yeast cells (with polyclonal antibodies) or a total lack of secretion (with mAbAF1). This modulation in the secretion of mAbAF1 reactive molecules was temporarily associated with germ tube emergence-elongation, and was not observed in an agerminative mutant of **C. albicans** grown under germination permissive conditions. These results highlight the dynamic aspects of the secretion of specific mannoprotein epitopes released from **C. albicans** during hyphal growth, and the direct relationship between this release and the dynamic expression of the same epitopes on the cell surface demonstrated previously.

L13 ANSWER 21 OF 35 MEDLINE on STN DUPLICATE 15
ACCESSION NUMBER: 92120795 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1769743
TITLE: Characterization of a monoclonal antibody (RJ5) against the immunodominant 41-kD antigen of Candida albicans.
AUTHOR: Shen H D; Choo K B; Yu K W; Ling W L; Chang F C; Han S H
CORPORATE SOURCE: Department of Medical Research, Veterans General Hospital, Taipei, Taiwan.
SOURCE: International archives of allergy and applied immunology, (1991) 96 (2) 142-8.
Journal code: 0404561. ISSN: 0020-5915.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199202
ENTRY DATE: Entered STN: 19920315
Last Updated on STN: 19920315
Entered Medline: 19920225
AB A 41-kD component of **Candida albicans** was identified

to be the major **antigen** radioimmunoprecipitated by antibodies with increased titers in the sera of patients with invasive candidiasis. A mouse monoclonal antibody (RJ5) was generated which, by immunoblotting, showed positive reactivity to the immunoprecipitated 41-kD component. By two-dimensional gel electrophoresis and immunoblotting, MoAb RJ5 was shown to react with different isoforms of the 41-kD component with pI values from 6.1 to 6.9. Furthermore, MoAb RJ5 showed positive reactivity to cytoplasmic **antigens** of **C. albicans** by frozen section and immunoperoxidase staining. By **SDS-polyacrylamide gel electrophoresis** and immunoblotting, MoAb RJ5 showed no cross-reactivity to **antigens** of Candida tropicalis and Candida parapsilosis. The epitope of the 41-kD molecule recognized by MoAb RJ5 was susceptible to treatment of proteinase K at concentrations of greater than or equal to 5 micrograms/ml, and was relatively resistant to periodate oxidation with concentration of NaIO4 up to 20 mM. This MoAb may be useful in the purification and characterization of the immunodominant 41-kD **antigen** of **C. albicans**, and as a probe in the detection of Candida **antigens** in the sera of patients with invasive candidiasis.

L13 ANSWER 22 OF 35 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 91178495 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1706757
TITLE: Lymphoproliferative and cytotoxic responses of human peripheral blood mononuclear cells to mannoprotein constituents of Candida albicans.
AUTHOR: Torosantucci A; Palma C; Boccanera M; Ausiello C M; Spagnoli G C; Cassone A
CORPORATE SOURCE: Laboratory of Bacteriology and Medical Mycology, Istituto Superiore de Sanita, Rome, Italy.
SOURCE: Journal of general microbiology, (1990 Nov) 136 (Pt 11) 2155-63.
Journal code: 0375371. ISSN: 0022-1287.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199105
ENTRY DATE: Entered STN: 19910519
Last Updated on STN: 20000303
Entered Medline: 19910501

AB Two major proteoglycan constituents (designated F1 and F2) of the cell wall of **Candida albicans** were separated by ion-exchange chromatography from a crude carbohydrate-rich extract (GMP), and investigated for their chemical and molecular composition, **antigenicity** and immunomodulatory properties in cultures of human peripheral blood mononuclear cells (PBMC). Both fractions consisted predominantly of Periodic acid-Schiff (PAS) and concanavalin A (Con A)-reactive material consisting of greater than 90% mannose, 3-5% protein and small amounts of phosphorus; each was recognized by an anti-Candida rabbit serum as well as by a monoclonal antibody (mAb AF1) directed against an oligosaccharide epitope present on the fungal cell surface. When F1 and F2 were subjected to **SDS-PAGE**, transblotted and stained with enzyme-conjugated mAb AF1 or Con A, most of the antibody or lectin bound to high molecular mass (greater than 200 kDa) polydisperse material, some of which was present in F2 (as in the starting

GMP extract) but absent in F1. This difference was also observed in PAS-stained gels of the two fractions. The F2, but not the F1, constituent was as active as the unfractionated GMP extract in inducing lymphoproliferation, production of the cytokines interleukin-2 and interferon-gamma, and generation of cytotoxicity against a natural-killer-sensitive target cell line (K562). These immunomodulatory properties were, like those possessed by GMP, protease-sensitive and heat-stable. Treatment of PMBC cultures with a modulatory anti-T-cell receptor antibody abolished the lymphoproliferation induced by GMP and F2 but not that induced by phytohaemagglutinin, showing that the mannoprotein materials of **C. albicans** acted through interaction with the **antigen** receptor complex.

L13 ANSWER 23 OF 35 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 91086913 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2175766
TITLE: Immunochemical studies of Aspergillus fumigatus mycelial antigens by polyacrylamide gel electrophoresis and western blotting techniques.
AUTHOR: Hearn V M; Wilson E V; Latge J P; Mackenzie D W
CORPORATE SOURCE: Mycology Reference Laboratory, Central Public Health Laboratory, London, UK.
SOURCE: Journal of general microbiology, (1990 Aug) 136 (Pt 8) 1525-35.
Journal code: 0375371. ISSN: 0022-1287.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199102
ENTRY DATE: Entered STN: 19910322
Last Updated on STN: 19910322
Entered Medline: 19910207

AB Differences were detectable among strains of the opportunist fungal pathogen Aspergillus fumigatus when water-soluble (WS) preparations were analysed by combined **SDS-PAGE** and Western blotting procedures. A wide range of molecules of apparent molecular masses from approximately 20 to greater than 100 kDa showed specific binding to antibodies raised in rabbits to A. fumigatus wall and cytoplasmic components. The ability to bind antibody was markedly reduced by treatment of these **antigens** with sodium periodate or with specific proteases or glucanases. Pretreatment of blotted **antigens** with either concanavalin A (ConA) or wheat germ agglutinin (WGA) did not, however, inhibit subsequent antibody binding. The **antigens** of subfractions prepared from a single strain of A. fumigatus WS material were also susceptible to periodate oxidation and enzymic hydrolysis. Slight cross-reactivity was apparent when crude preparations of cellular or culture filtrate **antigens**, used in this laboratory to detect antibodies to **Candida albicans** , Coccidioides immitis and Cryptococcus neoformans, were probed with hyperimmune rabbit antisera to A. fumigatus. Efforts were made to characterize the WS preparations of A. fumigatus, used as diagnostic **antigens** in many laboratories. The electrophoretically separated **antigenic** moieties were shown to be predominantly glycoproteins. Binding of cytoplasmic **antigens** to antibodies raised to wall material showed the presence of many common components in both wall and

cytosol. Antiserum to wall components revealed most differentiation among A. fumigatus strains.

L13 ANSWER 24 OF 35 MEDLINE on STN DUPLICATE 18
ACCESSION NUMBER: 90110472 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2295693
TITLE: Isolation, purification, and radiolabeling of a novel 120-kD surface protein on Blastomyces dermatitidis yeasts to detect antibody in infected patients.
AUTHOR: Klein B S; Jones J M
CORPORATE SOURCE: Department of Pediatrics, University of Wisconsin Medical School, University of Wisconsin Hospital and Clinics 53792.
CONTRACT NUMBER: AI-00905 (NIAID)
AI-15682 (NIAID)
SOURCE: Journal of clinical investigation, (1990 Jan) 85 (1) 152-61.
Journal code: 7802877. ISSN: 0021-9738.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199002
ENTRY DATE: Entered STN: 19900328
Last Updated on STN: 19900328
Entered Medline: 19900214

AB No well-defined Blastomyces-specific **antigens** are currently available. We used **sodium dodecyl sulfate-polyacrylamide gel electrophoresis** and immunoblotting to identify immunologically active molecules in the cell wall of B. dermatitidis. A major immunoreactive 120-kD protein (WI-1) was present in all five strains studied and comprised 5% of the protein in the cell wall extract obtained after freezing and thawing yeast cells. WI-1 was recognized by serum from all 10 patients with blastomycosis but by none of those from 5 patients with histoplasmosis. It was purified by electroelution, radiolabeled with 125I, and incorporated into a radioimmunoassay (RIA) for serodiagnosis of blastomycosis. Antibody to WI-1 was detected in 58 (85%) of 68 patients with blastomycosis (geometric mean titer, 1:2,981), in two (3%) of 73 patients with histoplasmosis, coccidioidomycosis, sporotrichosis, or candidiasis (titers, 1:86 and 1:91) and in none of 44 healthy persons. WI-1 was shown to be a surface molecule abundant on B. dermatitidis yeasts that were indirectly stained with serum from a rabbit immunized with WI-1. Approximately 0.93 pg of WI-1 or 4.7 x 10(6) WI-1 molecules were found on the surface of an individual yeast using an **antigen**-inhibition RIA; none was found on Histoplasma capsulatum or **Candida albicans** yeasts. We conclude that WI-1 is a novel, immunologically active surface molecule on the invasive form of B. dermatitidis and that WI-1 can be used to reliably detect antibody and study the immunopathogenesis of blastomycosis.

L13 ANSWER 25 OF 35 MEDLINE on STN DUPLICATE 19
ACCESSION NUMBER: 90178600 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2178483
TITLE: IgE-, IgA- and IgG-antibody responses to carbohydrate and protein antigens of Candida albicans in asthmatic children.
AUTHOR: Savolainen J; Viander M; Koivikko A

CORPORATE SOURCE: Department of Medical Microbiology, University of Turku, Finland.
SOURCE: Allergy, (1990 Jan) 45 (1) 54-63.
Journal code: 7804028. ISSN: 0105-4538.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199004
ENTRY DATE: Entered STN: 19900601
Last Updated on STN: 19900601
Entered Medline: 19900410

AB Analysis of IgE, IgA and IgG antibodies directed against **Candida albicans antigens** in 28 asthmatic children was performed with immunoblotting after **SDS-PAGE**. Analysis with the purified cytoplasmic protein fraction revealed a major protein allergen with an MW of 46 kD. In addition to the major allergen, 15 other **antigenic** bands with molecular weights between 16 and 135 kD bound IgE. Ten of 13 anti-**C. albicans** IgE-positive children had IgE towards the 46 kD major allergen. None of the subjects in the study group or in the non-atopic controls had IgA or IgG antibodies towards this protein. Analysis of the crude surface extract showed that mannan, a carbohydrate, was an intermediate allergen contrary to being the major **antigen** in IgA and IgG antibody responses.

L13 ANSWER 26 OF 35 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 90178599 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2178482
TITLE: Distribution of watersoluble antigens and allergens of Candida albicans in blastospore cell extract fractions.
AUTHOR: Savolainen J; Viander M; Koivikko A
CORPORATE SOURCE: Department of Medical Microbiology, University of Turku, Finland.
SOURCE: Allergy, (1990 Jan) 45 (1) 47-53.
Journal code: 7804028. ISSN: 0105-4538.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199004
ENTRY DATE: Entered STN: 19900601
Last Updated on STN: 19900601
Entered Medline: 19900410

AB Watersoluble **antigens** of **Candida albicans** were sequentially extracted from intact and disrupted yeast cells grown on protein-free agar, and analysed on immunoblots after **SDS-PAGE**. Washing of the cells in saline before proper extraction resulted in loss of 47.2% of the total carbohydrate and 1.5% of the total protein. The protein fraction contained 14 **antigenic** bands when analysed with hyperimmune rabbit antisera. Four of these bound IgE when probed with a RAST-positive serum pool and beta-galactosidase-labelled anti-IgE. Extraction of the disrupted cells resulted in 15% of the total carbohydrate and 94% of the total protein. The cytoplasmic protein fraction showed 69 **antigenic** bands, 13 of which bound IgE. The carbohydrate fraction contained mannan, which was found in the washing solutions and in the surface extract as well as in the cytoplasmic

extract. Allergens found in washing solutions were also present in cytoplasmic fraction. This study suggests that the rapid release of allergens from saprophytic **C. albicans** cells on mucous membranes of the body may cause continuous exposure and result in sensitization.

L13 ANSWER 27 OF 35 MEDLINE on STN DUPLICATE 21
ACCESSION NUMBER: 89323863 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2665907
TITLE: Allergenic components of Candida albicans identified by immunoblot analysis.
AUTHOR: Shen H D; Choo K B; Tang R B; Lee C F; Yeh J Y; Han S H
CORPORATE SOURCE: Department of Medical Research, Veterans General Hospital, Taipei, Taiwan, Republic of China.
SOURCE: Clinical and experimental allergy : journal of the British Society for Allergy and Clinical Immunology, (1989 Mar) 19 (2) 191-5.
Journal code: 8906443. ISSN: 0954-7894.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198908
ENTRY DATE: Entered STN: 19900309
Last Updated on STN: 19900309
Entered Medline: 19890830

AB Allergenic components of **Candida albicans** fractionated by **SDS-polyacrylamide gel electrophoresis** (PAGE) and transferred to nitrocellulose membranes were identified using sera from 30 asthmatic patients who showed positive skin test and RAST (radio-allergosorbent test) to **C. albicans**. The IgE-binding yeast components in the complex **antigen** preparation were then detected by reaction with enzyme-labelled anti-human IgE antibodies. They were confirmed by Coomassie blue R-250 staining of the membrane to visualize all protein bands after reaction with the enzyme substrate. The IgE-binding patterns of the sera tested were heterogeneous, displaying a total of 16 identifiable components with molecular weights ranging from 20 to 94 kD. A 40 kD component showed the highest IgE-binding frequency, being recognized by 23 (77%) of the 30 sera examined. The other 15 allergenic components identified were recognized by less than 25% of the sera tested. Only two of the 30 serum samples contained IgE antibodies reactive with seven to eight allergenic components. Ten of the 30 sera reacted with only one allergenic component, and the remaining serum samples recognized two to five of the 16 identified allergens. Results described in this study are applicable to allergen standardization work and provide a basis for further study on the role of **C. albicans** in clinical allergy.

L13 ANSWER 28 OF 35 MEDLINE on STN DUPLICATE 22
ACCESSION NUMBER: 89125562 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2644436
TITLE: Effect of iron depletion on cell-wall antigens of Candida albicans.
AUTHOR: Paul T R; Smith S N; Brown M R
CORPORATE SOURCE: Pharmaceutical Sciences Institute, Aston University,

Birmingham.
SOURCE: Journal of medical microbiology, (1989 Feb) 28 (2) 93-100.
Journal code: 0224131. ISSN: 0022-2615.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198903
ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19970203
Entered Medline: 19890315

AB Cell walls were isolated from stationary-phase cultures of **Candida albicans** grown at 25 degrees C or 37 degrees C, in iron-depleted and iron-sufficient conditions. Proteins solubilised from cell-wall fractions were separated by **sodium dodecyl sulphate-polyacrylamide gel electrophoresis**. Approximately 40 protein bands were detected by Coomassie blue staining in all wall extracts, regardless of temperature or other growth condition. Sera from patients with oral or systemic candidosis, from whom the isolates were obtained, and pooled normal human serum were examined for the presence of IgG and IgM antibodies to cell-wall proteins by Western blotting. Patient sera recognised more **antigens** than pooled normal human serum. In particular, an **antigen** of 44 kda was detected by IgG antibodies in the sera of patients and two **antigens** of 41 and 14 kda were detected by their IgM antibodies when the sera were used as probes against walls from iron-depleted cells, but not from iron-sufficient cells, grown at 25 degrees C. Two **antigens** of 45 and 40 kda were detected by IgM antibodies in the sera of patients tested against walls from iron-depleted but not from iron-sufficient cells grown at 37 degrees C. IgG antibodies did not distinguish between these wall preparations from cells grown at 37 degrees C. These results suggest that the specific cell-wall proteins induced during growth in iron-depleted conditions, as well as other proteins, were immunogenic and were recognised by the patients' antibodies.

L13 ANSWER 29 OF 35 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1989:136218 BIOSIS
DOCUMENT NUMBER: PREV198987070871; BA87:70871
TITLE: SEROLOGICAL RESPONSES TO PITYROSPORUM MALASSEZIA IN SEBORRHEIC DERMATITIS DEMONSTRATED BY ELISA AND WESTERN BLOTTING.
AUTHOR(S): MIDGLEY G [Reprint author]; HAY R J
CORPORATE SOURCE: DEP MED MYCOL, INST DERMATOL, ST JOHN'S HOSP DIS SKIN, LONDON, WC2H 7BJ, UK
SOURCE: Bulletin de la Societe Francaise de Mycologie Medicale, (1988) Vol. 17, No. 2, pp. 267-276.
ISSN: 0037-9336.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 10 Mar 1989
Last Updated on STN: 10 Mar 1989

AB Precipitating antibodies to Pityrosporum have been demonstrated in 40 patients with seborrhoeic dermatitis and to a lesser degree in normal

individuals, Detection was possible in most cases only after a five fold concentration of the sera. This result was confirmed using the more sensitive techniques of ELISA and immunoblotting and the higher antibody response in the patients was found to be due to IgG but not IgM. The seborrhoeic dermatitis subjects also had higher response to **Candida albicans** than the controls but absorption studies showed that the antibodies to each yeast could be removed independently. Immunoblotting after **SDS PAGE** of P. orbiculare **antigen** showed strong antibody binding to a protein band at the 35kd level in 9 out of 10 sera from seborrhoeic dermatitis patients. Other subjects shown to have high antibody titres to other fungi also reacted strongly to the P. orbiculare **antigen** but at a different location on the membrane.

L13 ANSWER 30 OF 35 MEDLINE on STN DUPLICATE 23
ACCESSION NUMBER: 88087819 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2447120
TITLE: Murine monoclonal antibody specific for lipopolysaccharide of Salmonella serogroup A.
AUTHOR: Luk M C; Tsang R S; Ng M H
CORPORATE SOURCE: Department of Microbiology, University of Hong Kong.
SOURCE: Journal of clinical microbiology, (1987 Nov) 25 (11) 2140-4.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198802
ENTRY DATE: Entered STN: 19900305
Last Updated on STN: 19900305
Entered Medline: 19880212

AB To facilitate the routine identification of salmonellae and detailed studies of their lipopolysaccharides, we raised murine monoclonal antibodies against these organisms. We raised an immunoglobulin G1 antibody, MO2, which is specific for factor O2. By immunoblotting following **sodium dodecyl sulfate-polyacrylamide gel electrophoresis**, MO2 was shown to bind only the lipopolysaccharide of Salmonella paratyphi A, giving a ladderlike reaction pattern with regularly spaced reactive bands. MO2 did not react against lipopolysaccharides of other Salmonella serogroups, including those of serogroups B, C, D, E, and L. Since the lipopolysaccharides of Salmonella serogroups A, B, D, and E are similar except for the presence of paratose in serogroup A organisms, this dideoxyhexose is therefore believed to be the immunodominant epitope for MO2. Consistent with the latter contention was the finding that periodate oxidation of the S. paratyphi A lipopolysaccharide did not destroy its **antigenicity** for MO2. In a slide agglutination test, MO2 was found to react specifically against all 12 clinical isolates of S. paratyphi A but not against 98 isolates of other salmonellae or 74 isolates of other bacteria and **Candida albicans**.

L13 ANSWER 31 OF 35 MEDLINE on STN DUPLICATE 24
ACCESSION NUMBER: 87315184 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3306369
TITLE: **Candida albicans** and Candida tropicalis

antigens studied by **SDS polyacrylamide gel electrophoresis** and Western blot.
AUTHOR: Bruneau S M; Guinet R M
SOURCE: Mykosen, (1987 Jun) 30 (6) 271-80.
Journal code: 0400765. ISSN: 0027-5557.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198710
ENTRY DATE: Entered STN: 19900305
Last Updated on STN: 19900305
Entered Medline: 19871002

L13 ANSWER 32 OF 35 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1986:390610 BIOSIS
DOCUMENT NUMBER: PREV198631076230; BR31:76230
TITLE: ANALYSIS OF **CANDIDA-ALBICANS ANTIGENS** BY **SDS-POLYACRYLAMIDE GEL ELECTROPHORESIS** AND IMMUNOBLOTTING.
AUTHOR(S): CAPLIN C [Reprint author]; REEN D J
CORPORATE SOURCE: CHILDREN'S RESEARCH CENTRE, OUR LADY'S HOSPITAL FOR SICK CHILDREN, CRUMLIN, DUBLIN 12, IRELAND
SOURCE: Biochemical Society Transactions, (1986) Vol. 14, No. 2, pp. 435-436.
Meeting Info.: 615TH MEETING OF THE BIOCHEMICAL SOCIETY, BELFAST, NORTHERN IRELAND, SEPT. 24-27, 1985. BIOCHEM SOC TRANS.
CODEN: BCSTB5. ISSN: 0300-5127.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 29 Sep 1986
Last Updated on STN: 29 Sep 1986

L13 ANSWER 33 OF 35 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 86:255860 SCISEARCH
THE GENUINE ARTICLE: C0133
TITLE: ANALYSIS OF **CANDIDA-ALBICANS ANTIGENS** BY **SODIUM DODECYL-SULFATE POLYACRYLAMIDE-GEL ELECTROPHORESIS** AND IMMUNOBLOTTING
AUTHOR: CAPLIN C (Reprint); REEN D J
CORPORATE SOURCE: OUR LADYS HOSP SICK CHILDREN, CHILDRENS RES CTR, DUBLIN 12, IRELAND; NATL UNIV IRELAND UNIV COLL DUBLIN, DEPT IND MICROBIOL, DUBLIN 4, IRELAND
COUNTRY OF AUTHOR: IRELAND
SOURCE: BIOCHEMICAL SOCIETY TRANSACTIONS, (1986) Vol. 14, No. 2, pp. 435-436.
DOCUMENT TYPE: Conference; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 5

L13 ANSWER 34 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1985-148218 [25] WPIDS
DOC. NO. NON-CPI: N1985-111818
DOC. NO. CPI: C1985-064470
TITLE: Monoclonal antibodies against Candida albicans - specific to one site on specified cytoplasmic antigens.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): BUCKLEY, H R; LARGEN, M T; STROCKBINE, N A
PATENT ASSIGNEE(S): (UTEM) UNIV TEMPLE
COUNTRY COUNT: 14
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 145333	A	19850619	(198525)*	EN	47
R: BE CH DE FR GB IT LI NL SE					
JP 60155135	A	19850815	(198539)		
US 4670382	A	19870602	(198724)		
US 4806465	A	19890221	(198910)		
CA 1251747	A	19890328	(198917)		
CA 1266233	A	19900227	(199015)		
JP 02276572	A	19901113	(199051)		
EP 145333	B	19910911	(199137)		
R: BE CH DE FR GB IT LI NL SE					
DE 3485054	G	19911017	(199143)		
JP 05304954	A	19931119	(199351)		15
JP 05306237	A	19931119	(199351)		15
JP 05306300	A	19931119	(199351)		15

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
EP 145333	A		EP 1984-307938	19841115
JP 60155135	A		JP 1984-252069	19841130
US 4670382	A		US 1984-571129	19840116
US 4806465	A		US 1987-32111	19870330
JP 05304954	A	Div ex	JP 1989-335253	19841130
			JP 1991-149262	19841130
JP 05306237	A	Div ex	JP 1989-335253	19841130
			JP 1991-149264	19841130
JP 05306300	A	Div ex	JP 1989-335253	19841130
			JP 1991-149263	19841130

PRIORITY APPLN. INFO: US 1983-557296 19831202; US 1984-571129 19840116; US 1987-32111 19870330
AN 1985-148218 [25] WPIDS
AB EP 145333 A UPAB: 19930925
(A) new monoclonal antibodies are of glass IgG and are produced by a hybridoma formed by fusion of cells from a mouse myeloma line with cells from a mouse immunised with cytoplasmic **antigens** of **Candida albicans.**
The antibodies (a) react with 3 cytoplasmic **antigens** of

C. albicans having apparent molecular wts. (by **SDS-polyacrylamide gel electrophoresis**) of 120-135, 48-52 and 35-38 kD, (b) are monospecific for a single **antigenic** determinant shared by the above **antigens,** and (c) are not contaminated with other immunoglobulins directed against any other Candida **antigens.**

(B) new polyclonal monospecific antibodies to the above **antigens** are produced by immunising an animal with the biochemically pure **antigen** and recovering the antibody from the animal.

USE - The antibodies are useful as immunological reagents for diagnosis of disseminated candidiasis, e.g. in immunosuppressed patients and in individuals with indwelling venous catheters.

0/6

ABEQ EP 145333 B UPAB: 19930925

A method of preparing monoclonal antibodies against cytoplasmic **antigens** of **C. albicans** with molecular weights of 35-38 Kd, 48-52 Kd and 120-135 Kd, characterised by culturing the hybridomas ATCC HB-8397 or ATCC HB-8398 in a suitable medium and recovering the antibody from the supernatant above the hybridomas.

ABEQ US 4670382 A UPAB: 19930925

Mouse monoclonal antibody reactive with 3 non-cell wall cytoplasmic **antigens** of **Candida albicans** having apparent mol wts 120-135 Kd, 48-52 Kd and 35-38 Kd as determined by **SDS-PAGE** is new. The antibody is prepd. by culturing hybridomas ATCC HB-8397 or HB 8398 in suitable medium and recovering the antibody from the supernatant; or by injecting the hybridomas into a mouse and recovering the antibody from the malignant ascites or serum of the mouse.

USE - In candidiasis treatment and therapy.

ABEQ US 4806465 A UPAB: 19930925

Process for the diagnosis of disseminated or invasive candidiasis comprises treatment of a blood serum sample with a biochemically pure prepn. of cytoplasmic **antigens** of **Candida albicans;** and detection/measurement of the antibody-**antigen** compelx formed. The **antigens** are obtd. by genetic engineering methods, and have Mr 48,000-52,000; 35,000-38,000 or 120,000-135,000; and are not detectable in patients having non-invasive infection.

USE - The process is an aid for rapid clinical analysis and diagnosis.

L13 ANSWER 35 OF 35 CONFSCI COPYRIGHT 2004 CSA on STN

ACCESSION NUMBER: 91:45152 CONFSCI

DOCUMENT NUMBER: 92013594

TITLE: Use of an alcaline extraction in reducing conditions to study the **antigenic** determinants of **C. albicans** by a gradient **SDS-page** and immunoblotting

AUTHOR: Hernando, F.L.; Cailliez, J.C.; Haguenauer-Tsapis, R.; Poulain, D.

CORPORATE SOURCE: Dep. Microbiol. e Immunol., UPV, 48080 Bilbao, Spain

SOURCE: ISHAM 1991, Congress Coordinators/Secretariat, JPdL Multimanagement Inc., 1410 Stanley St., Suite 609, Montreal, Que. H3A 1P8, Canada, Abstracts Poster Paper No. PS4.19.

Meeting Info.: 912 0046: XI Congress of the International

Society for Human and Animal Mycology (9120046). Montreal, Que. (Canada). 24-28 Jun 1991.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: UNAVAILABLE

(FILE 'USPATFULL' ENTERED AT 14:33:40 ON 02 SEP 2004)
L1 15667 SEA FILE=CAPLUS ABB=ON PLU=ON (CANDIDA OR C)(W)ALBICANS
L2 58209 SEA FILE=CAPLUS ABB=ON PLU=ON (SDS OR (NA OR SODIUM)(W)DODECY L(W)(SULPHATE OR SULFATE))(W)(PAGE OR (POLYACRYLAMIDE OR POLY(W)(ACRYLAMIDE OR ACRYL AMIDE) OR POLYACRYL AMIDE)(W)GEL(W) ELECTROPHOR?)
L15 38 SEA FILE=USPATFULL ABB=ON PLU=ON L1(S)L2
L16 6 SEA FILE=USPATFULL ABB=ON PLU=ON L15(S)ANTIGEN?

L16 ANSWER 1 OF 6 USPATFULL on STN
ACCESSION NUMBER: 2002:112558 USPATFULL
TITLE: Fungal antigens and process for producing the same
INVENTOR(S): Takesako, Kazutoh, Otsu-shi, JAPAN
Mizutani, Shigetoshi, Gamo-gun, JAPAN
Endo, Masahiro, Kusatsu-shi, JAPAN
Kato, Ikunoshin, Uji-shi, JAPAN
PATENT ASSIGNEE(S): TAKARA SHUZO CO., LTD, Kyoto, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002058293	A1	20020516
APPLICATION INFO.:	US 2001-987190	A1	20011113 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-262856, filed on 4 Mar 1999, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1997-JP3041	19970829
	JP 1996-255400	19960904
	JP 1997-99775	19970331

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 3093
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There can be provided a fungal antigen which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the fungal antigen; a biologic product containing the fungal antigen; a method of stimulating immunological responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Searcher : Shears 571-272-2528

INCL INCLM: 435/007.310
INCLS: 424/185.100; 435/254.100; 435/069.300; 435/183.000; 435/320.100; 536/023.200
NCL NCLM: 435/007.310
NCLS: 424/185.100; 435/254.100; 435/069.300; 435/183.000; 435/320.100; 536/023.200

L16 ANSWER 2 OF 6 USPATFULL on STN
ACCESSION NUMBER: 2002:54621 USPATFULL
TITLE: Mycobacterium tuberculosis CYP51 high resolution structure, polypeptides and nucleic acids, and therapeutic and screening methods relating to same
INVENTOR(S): Waterman, Michael R., Nashville, TN, UNITED STATES
Bellamine, Aouatef, Nashville, TN, UNITED STATES
Podust, Larissa M., Hermitage, TN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002031782	A1	20020314
APPLICATION INFO.:	US 2001-796138	A1	20010228 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-345218, filed on 30 Jun 1999, ABANDONED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: JENKINS & WILSON, PA, 3100 TOWER BLVD, SUITE 1400, DURHAM, NC, 27707
NUMBER OF CLAIMS: 42
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Page(s)
LINE COUNT: 16055
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A cytochrome P450 14α-demethylase enzyme isolated from Mycobacterium tuberculosis designated as MT CYP51. A crystalline form of MT CYP51 is also disclosed. Nucleic acid molecules encoding MT CYP51 are also disclosed. Recombinant host cells, recombinant nucleic acids and recombinant proteins are also disclosed, along with methods of producing each. Isolated and purified antibodies to MT CYP51, and methods of producing the same, are also disclosed. MT CYP51 is characterized as having 14α-demethylase biological activity. Thus, therapeutic and drug screening methods pertaining to this activity are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.100
INCLS: 702/019.000; 435/183.000
NCL NCLM: 435/007.100
NCLS: 702/019.000; 435/183.000

L16 ANSWER 3 OF 6 USPATFULL on STN
ACCESSION NUMBER: 2001:235097 USPATFULL
TITLE: Fungal antigens and process for producing the same
INVENTOR(S): Takesako, Kazutoh, Otsu, Japan
Mizutani, Shigetoshi, Gamo-gun, Japan
Endo, Masahiro, Kusatsu, Japan
Kato, Ikunoshin, Uji, Japan
PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Kyoto, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6333164	B1	20011225
APPLICATION INFO.:	US 1999-262856		19990304 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 1997-JP3041, filed on 29 Aug 1997		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-255400	19960904
	JP 1997-99775	19970331

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Smith, Lynette R. F.
ASSISTANT EXAMINER: Baskar, Padma
LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch, LLP
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2782
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There can be provided a fungal antigen which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the fungal antigen; a biologic product containing the fungal antigen; a method of stimulating immunological responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.300
INCLS: 435/007.200; 435/174.000; 435/177.000; 435/921.000; 435/922.000; 424/184.100; 424/274.100; 530/350.000; 530/395.000; 530/397.000; 530/399.000; 530/402.000; 530/405.000; 530/406.000; 530/408.000; 530/410.000
NCL NCLM: 435/007.300
NCLS: 424/184.100; 424/274.100; 435/007.200; 435/174.000; 435/177.000; 435/921.000; 435/922.000; 530/350.000; 530/395.000; 530/397.000; 530/399.000; 530/402.000; 530/405.000; 530/406.000; 530/408.000; 530/410.000

L16 ANSWER 4 OF 6 USPATFULL on STN
ACCESSION NUMBER: 92:16912 USPATFULL
TITLE: Antigen of Blastomyces dermatitidis and its uses
INVENTOR(S): Klein, Bruce S., Madison, WI, United States
Jones, Jeffrey M., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5093118		19920303
APPLICATION INFO.:	US 1989-406999		19890914 (7)

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted
PRIMARY EXAMINER: Russel, Jeffrey E.
LEGAL REPRESENTATIVE: Quarles & Brady
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 3
LINE COUNT: 523
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cell wall protein of the fungus B. dermatitidis is isolated and purified. The protein is readily recognized by serum antibodies from animals having blastomycosis. The protein antigen can be labelled to provide an assay for detection of the disease, it can be used to stimulate specific lymphocyte response and thereby provide another assay for detection of the disease, it can be used to produce an immune response to B. dermatitidis, or it can be used to create antibodies to the protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/088.000
INCLS: 530/371.000; 530/806.000; 530/824.000; 435/007.240; 436/544.000
NCL NCLM: 424/274.100
NCLS: 435/007.240; 436/544.000; 530/371.000; 530/806.000; 530/824.000

L16 ANSWER 5 OF 6 USPATFULL on STN
ACCESSION NUMBER: 89:12809 USPATFULL
TITLE: Cytoplasmic antigens of candida albicans and methods of using the same
INVENTOR(S): Buckley, Helen R., Philadelphia, PA, United States
Largen, Michael T., Philadelphia, PA, United States
Strockbine, Nancy A., Bethesda, MD, United States
PATENT ASSIGNEE(S): Temple University of the Commonwealth System of Higher Education, Philadelphia, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4806465		19890221
APPLICATION INFO.:	US 1987-32111		19870330 (7)

RELATED APPLN. INFO.: Division of Ser. No. US 1984-571129, filed on 16 Jan 1984, now patented, Pat. No. US 4670382 which is a continuation-in-part of Ser. No. US 1983-557296, filed on 3 Dec 1983, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Tarcza, John E.
LEGAL REPRESENTATIVE: Seidel, Gonda, Lavorgna & Monaco
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1024
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Two novel hybridoma cell lines, ATCC #HB-8397 and ATCC #HB-8398 produce monoclonal antibody monospecific to a single determinant shared by a set of three closely related cytoplasmic antigens of Candida albicans. The antigens have molecular weights of 120-135 Kd, 48-52 Kd, and 35-38 Kd. The hybridomas are formed by fusing splenocytes from immunized BALB/c mice with SP2/O-Ag 14 myeloma cells. Monoclonal and monospecific,

polyclonal antibodies to these cytoplasmic antigens find application in the immunodiagnosis of Candida infections.

A procedure is provided for preparing partially purified cytoplasmic antigen of pathogenic Candida species for administration to splenocyte-donating mice. Also provided is a method for the biochemical purification of cytoplasmic antigen of a pathogenic Candida species used for the preparation of monoclonal and monospecific, polyclonal antisera thereto.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.000
INCLS: 435/068.000; 435/240.270; 436/548.000; 436/518.000; 530/371.000; 424/088.000; 424/085.800
NCL NCLM: 435/007.310
NCLS: 435/070.210; 436/518.000; 436/548.000; 530/371.000; 530/388.500

L16 ANSWER 6 OF 6 USPATFULL on STN
ACCESSION NUMBER: 87:39822 USPATFULL
TITLE: Monoclonal antibody to Candida albicans cytoplasmic antigens and methods of preparing same
INVENTOR(S): Buckley, Helen R., Philadelphia, PA, United States
Largen, Michael T., Philadelphia, PA, United States
Strockbine, Nancy A., Bethesda, MD, United States
PATENT ASSIGNEE(S): Temple University--of the Commonwealth System of Higher Education, Philadelphia, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4670382		19870602
APPLICATION INFO.:	US 1984-571129		19840116 (6)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1983-557296, filed on 2 Dec 1983
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Warren, Charles F.
ASSISTANT EXAMINER: Tarcza, John E.
LEGAL REPRESENTATIVE: Seidel, Gonda, Goldhammer & Abbott
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1,2
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1115
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Two novel hybridoma cell lines, ATCC #HB-8397 and ATCC #HB-8398 produce monoclonal antibody monospecific to a single determinant shared by a set of three closely related cytoplasmic antigens of Candida albicans. The antigens have molecular weights of 120-135 Kd, 48-52 Kd, and 35-38 Kd. The hybridomas are formed by fusing splenocytes from immunized BALB/c mice with SP2/O-Ag 14 myeloma cells. Monoclonal and monospecific, polyclonal antibodies to these cytoplasmic antigens find application in the immunodiagnosis of Candida infections.

A procedure is provided for preparing partially purified cytoplasmic antigen of pathogenic Candida species for administration to splenocyte-donating mice. Also provided is a method for the biochemical

purification of cytoplasmic antigen of a pathogenic Candida species used for the preparation of monoclonal and monospecific, polyclonal antisera thereto.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.000
INCLS: 435/068.000; 435/240.000; 435/241.000; 435/948.000; 436/548.000; 424/085.000; 530/387.000; 935/104.000; 935/108.000
NCL NCLM: 435/007.310
NCLS: 424/141.100; 435/007.920; 435/070.210; 435/341.000; 435/948.000; 436/548.000; 530/388.500; 530/389.100

(FILE 'MEDLINE' ENTERED AT 14:38:01 ON 02 SEP 2004)
L27 11499 SEA FILE=MEDLINE ABB=ON PLU=ON "CANDIDA ALBICANS"/CT
L28 99309 SEA FILE=MEDLINE ABB=ON PLU=ON "ELECTROPHORESIS, POLYACRYLAMIDE GEL"/CT
L29 139 SEA FILE=MEDLINE ABB=ON PLU=ON L27 AND L28
L30 49365 SEA FILE=MEDLINE ABB=ON PLU=ON ANTIGENS/CT
L31 1 SEA FILE=MEDLINE ABB=ON PLU=ON L29 AND L30

L31 ANSWER 1 OF 1 MEDLINE on STN
ACCESSION NUMBER: 81068622 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7002799
TITLE: Analysis of cytoplasmic antigens of the yeast and mycelial phases of Candida albicans by two-dimensional electrophoresis.
AUTHOR: Manning M; Mitchell T G
CONTRACT NUMBER: 2 T32 GM 7171 (NIGMS)
AI 13088 (NIAID)
SOURCE: Infection and immunity, (1980 Nov) 30 (2) 484-95.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198102
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19970203
Entered Medline: 19810219
ED Entered STN: 19900316
Last Updated on STN: 19970203
Entered Medline: 19810219
AB The extent of the macromolecular change accompanying yeast to mycelium morphogenesis of Candida albicans was analyzed by two-dimensional gel electrophoresis of the cytoplasmic proteins of the two growth forms after antibody cross-absorption experiments. Pure cultures of yeasts and true hyphae (i.e., without concomitant production of pseudohyphae) were grown in a synthetic low-sulfate medium (LSM). The two strains selected for this study were strain 4918, which produces pure mycelial (M) cultures in LSM at 37 degrees C (designated 4918-37M) and yeasts (Y) at 24 degrees C (4918-24Y), and strain 2252, which produces yeasts exclusively at both 24 and 37 degrees C in LSM (2252-24Y and 2252-37Y). The proteins of both strains were labeled at both temperatures with [35S]sulfate, and cytoplasmic fractions were prepared by mechanical disruption and ultracentrifugation. Rabbits were immunized with the 4918-24Y and

4918-37M cytoplasmic fractions to produce anti-yeast-phase and anti-mycelial-phase hyperimmune sera. Each radiolabeled cytoplasmic fraction was absorbed with anti-mycelial-phase immunoglobulin, anti-yeast immunoglobulin, and immunoglobulin from normal rabbit serum. Staphyloccal protein A was used to remove immune complexes. The labeled, nonabsorbed proteins were also analyzed by two-dimensional electrophoresis. Highly reproducible protein spot patterns were obtained which defined hundreds of proteins in each extract. The specificity of the immunoglobulin hundreds of proteins in each extract. The specificity of the immunoglobulin preparations was extremely broad, and as many as 168 cytoplasmic antigens were detected. Eighty-three antigens were recognized in the mycelial-phase extract only by the anti-mycelial-phase immunoglobulin. However, comparative analysis revealed that all of these proteins were present in at least one other extract. Therefore, none of them was unique to the mycelial morphology. Eleven antigens were detected in the 2252-37Y extract that were not present in the extracts from strain 4918, which indicates that proteins obtained from different strains may express similar antigenic determinants, but differ in their physiochemical properties.

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, USPATFULL' ENTERED AT 14:34:40 ON 02 SEP 2004)

L17	773	SEA	ABB=ON	PLU=ON	"TAKESAKO K"?/AU
L18	5893	SEA	ABB=ON	PLU=ON	"MIZUTANI S"?/AU
L19	20544	SEA	ABB=ON	PLU=ON	"ENDO M"?/AU
L20	8785	SEA	ABB=ON	PLU=ON	"KATO I"?/AU
L21	25	SEA	ABB=ON	PLU=ON	L17 AND L18 AND L19 AND L20
L22	305	SEA	ABB=ON	PLU=ON	L17 AND (L18 OR L19 OR L20)
L23	67	SEA	ABB=ON	PLU=ON	L18 AND (L19 OR L20)
L24	105	SEA	ABB=ON	PLU=ON	L19 AND L20
L25	2	SEA	ABB=ON	PLU=ON	(L21 OR L22 OR L23 OR L24 OR L17 OR L18 OR L19 OR L20) AND L15
L26	2	DUP REM L25 (0 DUPLICATES REMOVED)			

- Author(s)

L26 ANSWER 1 OF 2 USPATFULL on STN

ACCESSION NUMBER: 2002:112558 USPATFULL

TITLE: Fungal antigens and process for producing the same

INVENTOR(S): **Takesako, Kazutoh**, Otsu-shi, JAPAN
Mizutani, Shigetoshi, Gamo-gun, JAPAN
Endo, Masahiro, Kusatsu-shi, JAPAN
Kato, Ikunoshin, Uji-shi, JAPAN

PATENT ASSIGNEE(S): TAKARA SHUZO CO., LTD, Kyoto, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002058293	A1	20020516
APPLICATION INFO.:	US 2001-987190	A1	20011113 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-262856, filed on 4 Mar 1999, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1997-JP3041	19970829
	JP 1996-255400	19960904
	JP 1997-99775	19970331

Searcher : Shears 571-272-2528

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 3093
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There can be provided a fungal antigen which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the fungal antigen; a biologic product containing the fungal antigen; a method of stimulating immunological responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 2 OF 2 USPATFULL on STN
ACCESSION NUMBER: 2001:235097 USPATFULL
TITLE: Fungal antigens and process for producing the same
INVENTOR(S): **Takesako, Kazutoh**, Otsu, Japan
Mizutani, Shigetoshi, Gamo-gun, Japan
Endo, Masahiro, Kusatsu, Japan
Kato, Ikunoshin, Uji, Japan
PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Kyoto, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6333164	B1	20011225
APPLICATION INFO.:	US 1999-262856		19990304 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 1997-JP3041, filed on 29 Aug 1997

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1996-255400	19960904
	JP 1997-99775	19970331

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Smith, Lynette R. F.
ASSISTANT EXAMINER: Baskar, Padma
LEGAL REPRESENTATIVE: Birch, Stewart, Kolasch & Birch, LLP
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2782
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There can be provided a fungal antigen which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed; a process for producing the same; a nucleic acid encoding the fungal antigen; a biologic product containing the fungal antigen; a method of stimulating immunological

responses by using the biologic product; a method of suppressing allergic reaction to fungi in a vertebrate; and a method for diagnosing a disease caused by fungi in a vertebrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> fil hom
FILE 'HOME' ENTERED AT 14:37:36 ON 02 SEP 2004